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STUDYGUIDE

A MILLION ACRES A YEAR

SYNOPSIS

The south west of Western Australia is one of world's most biodiverse areas. But in the last 50 years this priceless national heritage has been the scene of environmental destruction on a massive scale. Successive governments have sold off and encouraged the clearing of millions of acres for agriculture. Severe erosion, salinity, social and economic hardship and environmental devastation has been the consequence. Through the voices of people on the land this documentary looks at the history of this ecological disaster and reveals the impact it had on settlers, the landscape and Australia's unique flora and fauna. Finally, it outlines a case for a 'land ethic' and looks at efforts to turn around decades of gross mismanagement.

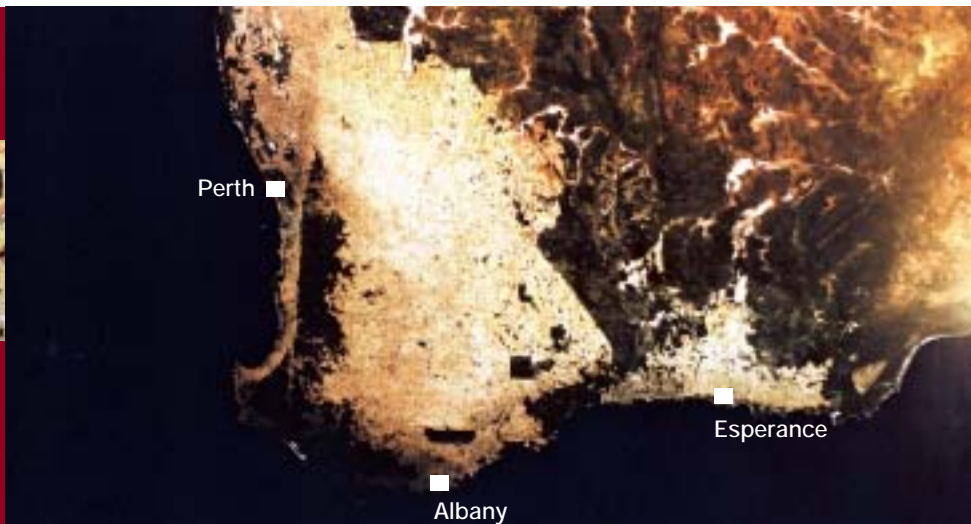


- Other curriculum links include:

- have shaped Australia
- State how 'lessons' from the past relate to the present and the future
- Discuss how choices at a public policy or political level affect long-term outcomes for the environment and communities
- Explain how causes, motives and consequences are related
- Demonstrate how value systems, culture and ethics affect choices
- Discuss the forces promoting and resisting change
- Evaluate the outcomes for individuals, society and the environment of attempts to change government policies and intervene in dominant social/cultural trends

- Read and discuss the Glossary of Terms (see p3)
- Research literature describing colonisers' relationships to the land (see Activity p12)
- Research 'land clearing', 'salinity' and 'biodiversity' through some of the suggested weblinks (see p13)

- Describe significant events that



SATELLITE PHOTO OF SOUTH WEST WA SHOWING RADICAL EXTENT OF CLEARING. THE STRAIGHT LINE DIVIDING VEGETATION (DARK AREA) FROM FARMLANDS (NEAR CENTRE OF PHOTO) IS THE NO. 1 RABBIT PROOF FENCE, WHERE MASS LAND CLEARING WAS HALTED IN 1984. (PHOTO CSIRO)

GLOSSARY OF KEY TERMS

An understanding of some of these terms prior to viewing will assist students' overall comprehension of the documentary.

- War Service Land Settlement Scheme – a program funded by the Commonwealth and managed by the states to settle returned WWII servicemen on farms.
- Conditional Purchase (CP) Scheme – a WA state program that allocated bush blocks to established and prospective farmers under specific terms of purchase and time-tables of development.
- Newland Farmers – people who took up farms on so-called 'new' land, ie. in bush being allocated for clearing and development.
- virgin land – natural bushland undisturbed by agricultural development.
- ecosystems – interrelated systems of plants, animals, soils, water and climate whose inter-dependency is the key to their common equilibrium and survival.
- biodiversity – the variety of all life forms: the different plants, animals and microorganisms, the genes they contain, and the ecosystems of which they form a part. The term is often used to refer to the health and abundance of plant and animal communities in any particular region or habitat.
- traditional farming – agriculture brought to Australia with European colonisation – typically broadacre cultivation of grains such as wheat, barley, oats and the husbandry of

- livestock such as sheep and cattle.
- sustainable development – development which does not undermine its future viability by depleting the natural resources upon which it is based.
- land degradation – damage such as erosion of topsoil by wind and water, salinisation, waterlogging and acidification of farmland commonly caused by agricultural practices.
- dryland salinity – condition whereby salt deep in the soil profile is concentrated on the surface after the water table rises due to clearing of natural vegetation (which normally uses the water). This salt then limits and eventually stops growth of crops, pastures and natural vegetation.
- drought – a sustained period of low rainfall which has a detrimental effect on agriculture (It has less impact on the natural environment which is better adapted to the vicissitudes of climate).
- wind erosion – the stripping away of topsoil by strong winds, especially on cleared land made vulnerable by over-grazing, tillage or dry seasons.
- extinction – complete destruction of all living individuals of a particular species of plant or animal.
- endangered species – species at risk of extinction usually due to loss of habitat.
- vermin – animals considered by farmers to be obnoxious, troublesome or destructive, such as emus, kangaroos, dingoes, eagles, snakes, parrots, cockatoos (now

all protected) and the introduced rabbit and fox.

- ethics – the study of human morality, conduct and duty with emphasis on what might be right and wrong; the basic principles of right action.

Species of flora referred to:
York Gum, Salmon Gum, Mallee, Gimlet, Morrel, Mort, Heathlands.

Species of fauna referred to:
Malleefowl, White-tailed Black Cockatoo (or Carnaby's Cockatoo), Honey Possum, Quail, Blue Wren.

Key locations referred to:
Fitzgerald River National Park, Jerramungup, No. 1 Rabbit-Proof Fence (specifically between Ravensthorpe & Hyden).

INTRODUCTION

A Million Acres a Year explores the environmental and social consequences of Commonwealth and Western Australian government schemes to replace the bush with agriculture. Shortly after the Second World War, in a debt of gratitude to returned servicemen, the Commonwealth Government launched the War Service Land Settlement Scheme which offered farms on very 'soft' terms. This was perceived as an opportunity for the soldiers to re-establish their lives while converting what was seen as unproductive scrub wastelands into productive farming communities.

Following the success of the War



WAR SERVICE LAND SETTLEMENT HOUSE AND WORKERS (COURTESY GILLIAN BRASTINS)



ABOVE: PLAN OF BLOCKS FOR SELECTION

known as Newland Farmers.

Much of the land was unsuitable for sustainable farming yet the new land holders were obliged to bulldoze and burn the native bush or risk losing their allocation. The long-term consequences have been disastrous, with broadacre farming and salinity turning most of the natural landscape into a biological desert. Many farmers are now caught in a financial catch-22: unviable

Newland Farmers to save and rebuild the remnants of south western Australian heathlands, while searching for sustainable and ethical farming methods. It also gives us glimpses of the stunningly diverse bush that remains. (For an overview of major events see Timeline p12)

KEY FEATURES OF THE ECOLOGICAL SCENE

In the hinterland of the south west of Western Australia geologists have discovered the earth's oldest crystals and in the quartzite ranges along its southern edge are found the oldest recorded traces of living organisms. It is one of the oldest exposed landscapes on the planet. It's a subdued undulating landscape in which the early mountain ranges are long gone, washed to the sea by eons of erosion. In their place are gentle plains, interspersed with rounded granite tors and sparkling salt lakes.



Rex Edmondson



Veronica Kingdon



Bill Moir

Service schemes the state government expanded its Conditional Purchase Scheme to open up vast tracts of public land to agriculture. Hundreds of farms were allocated to applicants who came predominantly from the eastern states to take up what was the cheapest land in Australia. In Western Australia a million acres of bush was released to agriculture every year during the 1960s. Those who worked the land under these schemes were

farms force them further into debt and this prevents them from investing in more sustainable agricultural systems.

Beginning as an exploration of farm settlement and development, then describing the environmental and social disaster that resulted from the poor planning and management of these schemes, *A Million Acres A Year* further develops to explore and celebrate the determined fight of some

Across this land, in island reserves and national parks that escaped the mass clearing era, lays a thin mantle of heathland, mallee woodland and thicket clinging to a mosaic of varying soil types. The rainfall is marginal and unpredictable and the soils are some of the most infertile in Australia. However, for reasons we do not completely understand, this land has hosted an evolutionary explosion. The south west of Western Australia is now recognised for its unparalleled diversity of plants.

TOP: CLEARING BULLDOZER AND CHAIN.
BELOW: NEWLAND FARMERS BURNING OFF
BUSH 1968 (PHOTO COURTESY GEOFF BEE)

A Million Acres A Year travels along the south-west's southern fringe, an area some have called the 'Galapagos Islands' of plant diversity. New plants are still being discovered and around 20% are yet to be scientifically named.

ACTIVITY – SETTING THE ECOLOGICAL SCENE - RESEARCH

Students could explore the following questions, which focus on the special ecological characteristics of the region.

- What are the characteristics of an ancient landscape?
- How do the soils in old landscapes differ from those of newer landscapes that have experienced more recent glacial or volcanic activity?
- Why are the soils in these regions called 'nutrient deficient' and what has caused this deficiency?
- How could the conditions of soil type, a long period of geological stability and climate have led to the evolution of such rich plant diversity in this region?

In his commentary Dr Steve Hopper states:

The more I've looked the more I realise that this is one of two or three places in the world that really is superbly ancient. It's just the oldest extant landscape on earth. And the flatness is due to great maturity.

Keith Bradby, the narrator, says:

Almost a third of Australia's total number of plant species grow in this little corner of south western Australia, which is ranked in the top 25 areas of the world for biological diversity. ... In this reserve alone [Fitzgerald River National Park] you can find over 2000 species of plants, as many as in all the Australian rainforests put together.

ACTIVITY – SETTING THE ECOLOGICAL SCENE - DISCUSSION

- Students could discuss how these



two statements are related; how does Hopper's statement inform Bradby's?

UNDERSTANDING THE CONTEXT OF DEVELOPMENT

The narrator tells us: 'After World War Two Western Australia launched one of the heaviest assaults on virgin land

in Australian history. More land was released to agriculture in just three decades than in the previous 130 years of white settlement.'

Rex Edmondson describes the rapid development of the Jerramungup War Service Land Settlement Scheme where enough bush for 130 farms was cleared and developed in 4 years. The



early success of this scheme encouraged development on an even bigger scale through the Conditional Purchase Scheme.

ACTIVITY – MOTIVATION FOR DEVELOPMENT

Students could use the film as a resource to answer the following questions:

- What was the 'million acres a year' program and why was it so called? What else was it called?
- What was the motivation of governments to open up large areas of bush for agriculture?
- What sort of people took up CP allocations?
- What were the aspirations of the settlers?
- How much per acre did Newland settlers pay for their CP blocks? (What would be the equivalent value in today's currency?)
- What kinds of agricultural practices were established in these regions?

SOCIAL/POLITICAL CONTEXT OF DEVELOPMENT

There are forces at work in society which we need to make sense of if we are to make better decisions in relation to our environment. Through the film's narration we see that the War Service Land Settlement and Conditional Purchase schemes were devised with the best interest of individuals, communities and the country in mind. Keith Bradby says 'The government proudly boasted its achievement: New townships, industry, thriving communities in previously unproductive bush. Happiness and security for families who took the plunge.' At face value, the reasons for massive agricultural expansion after WWII were popular and well intentioned. But were they well informed and responsible?

ACTIVITY – SOCIAL/POLITICAL CONTEXT OF DEVELOPMENT

Students could discuss the dominant social/political factors that drove the extent of agricultural development. These

points could be used for discussion:

- mimicking of large-scale agricultural development in other parts of Australia and the Americas
- the lobbying of farmers and their representative bodies
- the influence of politicians
- the prioritisation of wealth-making over other values
- inherited cultural attitudes towards the Australian bush
- the 'populate or perish' mentality which advocated settlement of outlying regions

Post-war settlers were considered rugged, stoic individualists who were fighting a war 'out through the fence' - the Number 2 Rabbit Proof Fence at Jerramungup. The bush was commonly considered as hostile, untamed and unproductive, and was referred to as a home for vermin. Newland farms were cleared of virtually all trees, little was left standing within farm boundaries for animal shelter and windbreaks – or habitat for native flora and fauna.



SUSANNE DENNINGS



DON COCHRANE



BOB TWIGG



GARRY ENGLISH



IAN MANGAN

TABLE 1: INFLUENCES ON STYLE OF DEVELOPMENT

OPTION		PRIORITISE (1-9)
Students could further explore why so little bush was left on farms by discussing the probability of the following administrative and pragmatic reasons.	<ul style="list-style-type: none"> • Because with developments in technology the task of clearing became easier than in past eras • Because treeless paddocks are easier to plough, seed and harvest with modern machinery • Because bush was believed to be a home for vermin • Because no one knew of the detrimental effects of over-clearing • Because there were poisonous plants in the bush and it was cheaper to clear rather than fence off • Because no economic value was placed on natural vegetation • Because it was the trend or fashion of the times • Because of advice from government agencies • Because of the conditions attached to Conditional Purchase agreements 	



Land clearing and development before WWII progressed at a relatively slow pace. With old methods of clearing people crept out just beyond the last clearing and tended to be more selective about the quality of the land they cleared because the clearing was done by hand with axes and with

IDEAS ABOUT AGRICULTURAL DEVELOPMENT

It is clear from the film that the dangers of over-clearing on fragile and salty soils were understood by some settlers. Veronica Kingdon tells the story of how she defied the Condition-

- What motivated a minority of people to act and speak in opposition to mass land clearing?
- What did this minority experience during, or feel about, the clearing of the bush that made them question the status quo?
- What would it have felt like to be a



TOP: KAYE VAUX WITH CHILDREN AND SAILING TROLLEY ON SALT LAKE

LEFT L-R: JIM JOHNSON, MAREE JOHNSON, PETER LUSCOMBE, KEITH BRADBY

horses. After WWII clearing became mechanised with tractors and bulldozers. By the early 1960s bulldozers dragging a 14 ton chain were being used. Ian Mangan recalls:

They used contractors with a ball and chain. It was done on a big scale. You know they'd do about ten thousand acres in one swipe. Made a big square of it and bowled everything over.

ACTIVITY – INFLUENCES ON THE STYLE OF DEVELOPMENT

See table 1 on page 6.

RESISTANCE TO DOMINANT

al Purchase regulations and refused to clear 1000 acres of the land she was allocated.

ACTIVITY - RESISTANCE TO DOMINANT IDEAS

- Give some examples from the film of how other people opposed the clearing trends of the time.

Students could discuss:

- What was the level of awareness of the potential damage of over-clearing at the time?

minority opposing voice in a community that strongly supported mass land releases?

ENVIRONMENTAL PROBLEMS

In the first half of the film we learn that farmers 'rode a wave of reliable world markets and successive good seasons' in the first decade of settlement. This initial prosperity gave a false confidence and concerns about conservation and salinity were largely ignored. However at the end of the 1960s salinity, drought, erosion and the changing economy caught up with the farmers,

causing an environmental nightmare.

It took 10-15 years after clearing for rising water tables to create a salinity problem which, as land values increased and commodity prices decreased, also became an economic problem. The frustration felt by farmers is voiced by Don Cochrane, who states that it was known for over one hundred years that the removal of natural vegetation caused dryland salinity and degradation.

A Million Acres A Year states that fifty years of agriculture is undoing three billion years of evolution. If continuing practises are not reversed, salinity in the south western region could cause the extinction of 450 plant species.

ACTIVITY - RESEARCH ENVIRONMENTAL PROBLEMS

Using the film and the internet links provided, (see p. 13) research:

- What is dryland salinity and how is it caused?
- What proportion of land is affected by salinity?
- What will be the proportion of land affected by salinity in 50 years time?
- On average, how much bush is left on farms in Western Australia?
- Give examples of plant and mammal species whose survival has been threatened by agricultural practices. What are the specific factors that threaten these species?

While land clearing and the progressive march of salt across the landscape are the obvious agents of biological demise, the very practice of agriculture itself impacts on life-forms we rarely see – the micro flora and fauna in the soil itself. The use of herbicides, pesticides and fungicides is common practice in cropping. Dr. Steve Hopper states that survival of fauna and flora relies on the top 5cm of soil.

ACTIVITY - TOPSOIL

- What are the elements of this

narrow band of topsoil that are so important to life?

- How is this topsoil destroyed (other than by use of chemicals)?

ACTIVITY - DISCUSSION

- If salinity continues at this rate and existing patches of bush on farms die off because they are not fenced off from livestock that eat out the new growth, what will the rural Australian landscape be like in five years time? Ten years? Fifty years?
- Give examples of environmental collapse in other parts of the world throughout history due to human agricultural practices. (e.g., Sahara Desert; Euphrates River valley; American dust bowl.)
- Are current agricultural practices sustainable?

SOCIAL & ECONOMIC ASPECTS OF LAND DEGRADATION

During the 1960s, 70s and early 80s farmers could ignore the effects of land degradation because land was relatively cheap and available. It was cheaper to buy more land rather than try to rehabilitate land lost through salt. But when environmental factors like drought coincided with falls in prices for produce or rises in prices of farm inputs, many were pushed over the edge. Jim Johnson states

If you leave your son a farm these days he is likely to sue you for child abuse.

- What does he mean by this statement?
- What social and economic problems have been exacerbated by degradation of the land?

WHAT IS THE CONNECTION BETWEEN WHAT WE EAT AND WEAR, THE PRICE WE PAY FOR AGRICULTURAL COMMODITIES AND THE ENVIRONMENT?

There is a consumer demand for grain, meat, wool, and cotton which demands the regular supply of these commodities as cheaply as possible, with little thought to the long-term cost.

Further, in the global marketplace, farmers must compete against the cheapest producers in the world. Commodity prices are set by stock exchanges in remote cities that make no distinction between sustainable products and those whose production contributes to the degradation of the environment. Their interest is in margins and quantities, not sustainability. This means that the costs associated with depletion and degradation of natural resources is not reflected in the prices paid for the goods and so farmers are often forced to push beyond sustainable limits in order to maintain adequate incomes and survive debts.

Kingsley Vaux says 'There's a lot of farmers who know, or who could look after their land properly but it's the hip pocket. It's the finance. You can't spend money on land care knowing that you're not going to get a return on it in the first twelve months.'

ACTIVITY - RELATIONSHIPS BETWEEN MARKETS AND LANDSCAPES

What are the relationships between the operation of the global economy and local landscapes? Students could explore this through the following questions:

- What is the relationship between the price we pay for food and the health of the landscape?
- What is the relationship between world commodity prices and the health of our landscape?
- How do low prices for produce impact on the environment?
- Why do farmers who are under financial pressure damage the land more?

ECONOMY

What does it cost to produce a tonne of wheat? Most commonly the costs counted are for: machinery, fuel, seed, chemicals, transportation, land, interest on loans and labour. Economists now contend that these elements do not represent the total or true cost of production because the loss to the community of natural resources like soil, water, native flora and fauna is not



ABOVE: KINGSLEY VAUX

counted. Every bag of wheat, every bale of wool that is sold overseas at a price that is less than the true long term cost of production represents a transfer of wealth to our trading partners and a loss of wealth for Australia.

The narration of the film claims 'It's now become clear that despite turning over billions of dollars every year, farming in this country is based on a false economy, that's not only discounted the environment but discounted the very people who came here to farm.'

ACTIVITY - FALSE ECONOMY

Students could discuss:

- What is meant by 'false economy'?
- How is the environment discounted in the conventional account of economic costs and benefits?
- How are people discounted?

BLAMING THE WEATHER

The documentary cites two major drought events that had enormous impact on the farming economy and environment of Western Australia, and there have been many other such events around the country. There is no reliable schedule or timetable for rain on this continent, yet most forms of agriculture rely on a certain amount of

rain within a specific growing season. When the rains do not come on 'schedule' farmers face the increased threat of wind erosion, failing crops, starving sheep and growing debt.

Peter Luscombe describes these seasonal droughts as a normal part of the Australian climate. He suggests that poor planning by government who released the land for agriculture in the first place, and farmers who do not account for dry seasons in their long-term business plans, are responsible for the economic and environmental problems droughts present – not the weather.

He is supported by Garry English who believes the band-aid solutions offered by government to farmers in the form of drought assistance, extreme circumstances, interest subsidy and rural adjustment packages, only mask the environmental problems and do not solve them. It should be remembered that this sort of government support is rarely given to other kinds of small businesses that get into trouble because of the weather or the fiscal environment.

ACTIVITY - TO PROP UP FARMERS OR NOT?

Discuss:

- Are there good reasons for tax

payer funded subsidies to farmers?

- If tax payer funded subsidies to farmers are necessary, what should be expected from them in return?

COURSES OF ACTION

Unlike any other business if you open up a shop somewhere and it fails well so what, you can move on and do something else. But if your farm fails and you stuff up the land, that land is stuffed up for everyone for the future. I don't think we've got the right to do that. And I think real farmers accept that.

Steve Newbey

A Million Acres a Year tells a global story at a personal level. Erosion, salinity, poor crops and loss of biodiversity affect everyone, not just those farming the land. In personalising this story, the environmental problems are presented as significant, but not overwhelming. The courage and tenacity of the farmers offers hope that our environment and landscape is not facing inevitable annihilation. By offering hope and ideas for solutions, this documentary supports the Newland Farmers who have acknowledged the destructive impact of traditional farming methods and are trying to undo 50 years of damage. Some people featured in this documentary spoke

out against the clearing of bushland and actively tried to save some areas of bush.

These farmers brought ethics into agriculture.

ETHICS & RESPONSIBILITY

Steve Newbey, Peter Luscombe and Garry English are three farmers working to either rehabilitate their farms or create alternative forms of agriculture. Susanne Dennings is actively involved in research and preservation of the Malleefowl. *A Million Acres a Year* celebrates the struggles and achievements of these farmers who changed from traditional farming for the benefit of the land, themselves, their community and all Australians.

All vegetation is protected on this property. So we've got some very good habitat and some very good flora and fauna. And I feel well about that. And this then goes back to a social thing in that it's something which makes you feel proud of being on the land. - Garry English

In my case I feel I've got a responsibility to repair the damage that my family has done to this land before I finish with it. - Steve Newbey

There are many different reasons or motivations that spur farmers to change detrimental agricultural practices. Steve Newbey and Garry English's explanations of their motivation fall within the realm of ethics or responsibility (rather than science or finance for example).

ACTIVITY - TURNING POINTS

The narrator Keith Bradby states: 'People whose dream had been farming, in the eighties they went through a transformation I marvel at and I just admire their courage.'

- What are some of the turning points that farmers in the film describe which set them off on a different course?

Bill Moir describes the rewards of farming, 'You always felt that farm-

ing was something that was really important. That you were doing, you were feeding the starving people of the world, the people that really needed your products. ... But then it started to change.'

- What changed Bill Moir's view of the relative importance of agriculture?
- What are the rewards for farmers who have turned their time and resources to landcare?

Ian Mangan tells us: 'I'm beginning to think now if we could get a fast growing tree for this rainfall here, I'm saying I'd be interested in planting as much back as I could. And probably keep the better land and just run a few head of stock and just do a bit of cropping and stay there. And I'd probably be in a darn sight better financial situation than we are at this point in time.'

- Are people like Ian Mangan who are interviewed in the film representative of the broader rural community, or do they portray the view of a progressive minority? What are the implications of this?

Peter Luscombe created a native seed business 25 years ago. His company is now Australia's largest native seed supplier.

- What are some other ways that people in the film have responded to the environmental problems?
- What are some other examples of sustainable enterprise that could be undertaken in rural environments – both in agriculture and other fields?

RESISTANCE TO CHANGE

It was the catchcry of the 1960s that Australia was built on the sheep's back and was one of the world's bread baskets. Our agriculture is modelled on tried and proven traditions. Some people in the film identified particular difficulties associated with change in rural communities so steeped in tradition.

The homogenous views that most of the community has that is the biggest

problem. Not the salinities and not the biodiversity loss, although they're significant issues. I think that the dilemma is that we are too mono-dimensional in our thoughts about landscape and about how we even live with it.

Nathan McQuoid

Ethics. Just that one word for a lot of people it conjures up a whole lot of negative things. And especially if you relate that to agriculture. Bob Twigg

ACTIVITY - RESISTANCE TO CHANGE

These quotes give some indication of resistance to change in the farming community. Students could discuss:

- How does attitudinal change occur? In what ways could these attitudes be changed?
- Has there been a change in broader community attitudes over time and a corresponding change in the connotations of words like 'development' and 'scrub'? If so, why has this change occurred?

IS LANDCARE ENOUGH?

Landcare can take on many forms, for example: revegetation with monocultures of exotics or natives; revegetation with multiple species of natives; fencing off bush and waterways from livestock; minimising or ceasing use of chemicals; digging ditches to drain away saline water. Some of these landcare practices are focused on better farm productivity, others on the more holistic aim of a healthier landscape. The documentary declares 'despite government backed landcare programs and the best efforts of those trying to care for the bush and waterways on their farms, the natural systems that cling to these agricultural landscapes are not even holding their own. They're going backwards.' This statement suggests that if we, as a society, do not devote more and better directed resources to environmental care that the situation will continue to get worse.

ACTIVITY - IS LANDCARE ENOUGH?

- What are the typical activities of landcare?



FITZGERALD RIVER NEAR ROE'S ROCK

- Why, after 20 years of landcare is the state of the environment getting worse?
- Are current landcare practices more strongly focused on better farm productivity or improved biodiversity?
- How do these two approaches differ?
- Is landcare associated with traditional agriculture strong enough? Do we need new kinds of economies in the bush?

Bill Moir states: '... you see that bush out there, we can land a man on the moon and bring him back, but we can't create that bush. No matter how hard we try we can't create that bush. We can plant trees but we can't create that.'

ACTIVITY - CAN WE RE-CREATE BUSH?

- Why does Bill Moir say that we can't create 'that bush'?
- What is the difference between revegetation and the native bush?

SOLUTIONS IN THE REALM OF PUBLIC POLICY

Change in society can happen on various levels: personal, philosophical, on both the political and administrative levels of local government, through state and federal government, community groups, industry groups, media, scientific or economic groups.

- Describe what field or realm the major solutions proposed in the documentary belong to, for example; Scientific? Political? Economic? Personal? Administrative? Cultural?
- What immediate actions to remedy environmental problems does the documentary propose?
- Do we need more research and scientific information before we can act?

ACTIVITY - PRECEDENTS FOR GOVERNMENT ACTION

Compare government responses to concerns about environmental practices in agricultural industries to action taken to remedy concerns about:

- practices of the timber industry in old-growth forests
- practices of the mining industry

At the end of the film Garry English states: 'We certainly should be managing our waterways and taking some of those out of the system. And just readjusting properties to management boundaries rather than the gridlines that we are working on at the moment, which are, you know look nice on a map but frankly they don't recognise the landscape.' This is a solution that requires strong government intervention and has implications for sensitive issues such as private property rights.

ACTIVITY - DO WE NEED NEW LAWS?

- Should society assist farmers to redraw the boundaries on their farms to increase their viability and decrease environmental damage?
- Should government make laws to compel farmers to protect areas of remnant natural vegetation and to change to forms of sustainable agriculture?

TABLE 2 'TIMELINE'

1897	Steam engine drivers in the Avon Valley report that fresh water sources in catchments that have been cleared for farms, have become saline
1924	W.E. Wood publishes the definitive scientific paper on 'Increase of salt in soil and streams following the destruction of native vegetation'.
1946	Soldiers return home after World War Two
1951	Due to increasing salinity the Public Works Department suggests that clearing should be banned in water supply catchments
1953	The War Service Land Settlement project begins at Jerramungup
1960	Land along the south coast of Western Australia is opened up to other settlers under the Conditional Purchase Scheme
1959-1969	One million acres a year are released to agriculture; farmers prosper under ideal climatic and economic conditions
1969-1971	A 3 year drought and falling wheat prices plunge Newland farmers into crisis; farmland degrades under overstocking of sheep
1971-1976	Many Newland farmers are forced to walk off their unviable farms
1975	Peter Luscombe breaks away from traditional farming to start his native seed business
1979	The state government launches plans to clear a further 3 million hectares
1981-1983	Another 3 year drought affects south-coastal farms; 10% of farmland along the south coast suffers wind erosion
1984	After 4 years of lobbying by a small group of rural people, the newly elected state Labor government imposes a moratorium on mass land releases
1980s	Wind erosion and dryland salinity are recognised as major problems and landcare programs commence
2003	After almost two decades of landcare, remnants of natural vegetation continue to die as a result of on-going salinity and lack of fencing to keep out sheep

ACTIVITY - WHAT CAN EACH OF US DO TO HELP?

If each of you, in your personal lives, could do something to help repair our environment, how far would you be prepared to go?

- pay more for Australian agricultural produce
- refuse to buy produce which is not grown sustainably
- agree to tax payer funded subsidies to farmers to produce agricultural commodities in a sustainable way
- agree to laws that would compel farmers to farm sustainably

LOCATION OF THE FILM WITHIN AUSTRALIAN MYTHOLOGY & LITERATURE ABOUT SETTLERS' RELATIONSHIPS TO THE BUSH

Students can research Australian literature for representations of Australians and their landscape. In the last 200 years, Australians have written extensively about their relationship with the bush. Descriptions of endless battles against this so-called harsh, unrelenting, unforgiving landscape can be found throughout Australian fiction. As this struggle was romanticised, so was born the myth of the 'little Aussie battler', fighting this landscape, subduing and transforming it, and sometimes loving it.

Dorothea Mackellar's 'My Country' is a clear example of the love felt toward this landscape, while Kenneth Cook's 'Wake in Fright' describes a revolution to it. The poems of Judith Wright ('Dust') and C. J. Dennis ('The Spoilers') describe sadness and outrage at the ruination of the land. Other writers such as D'Arcy Niland, Peter Carey, Albert Facey, Henry Lawson and Banjo Paterson all describe Australians within the landscape. Students could explore Australian fiction and poetry for the relationship between Australians and their environment.

A Million Acres A Year describes the changing landscape, and the changing relationships with the land. The farmers initially struggle to eradicate

the bush to raise crops and sheep; later they recognise the environmental damage they have done and develop an affinity with the land and knowledge of native plants and animals; then they struggle to save the land from salinity, erosion and further species extinction.

ACTIVITY – QUESTIONS OF RELATIONSHIP TO THE LAND

Discuss:

- Where developing the land was once seen as positive, it is represented in the documentary as being problematic. How is this changing perspective echoed in Australian literature?
- Give examples from Australian literature and the film of the contradiction between settlers' dependence on and occasional love for - versus the fight against and antipathy to the bush.
- Students should ask which 'environment' is the subject of settlers' 'love' – the rural landscapes they have transformed and developed, or the native bush with its diverse flora and fauna, or something in-between?

Kaye Vaux recorded her personal response to the changing landscape in a poem. Students can discuss how this poem fits into the canon of Australian literature about the land.

'The 1980 Nightmare' by Kaye Vaux

*An island sea of green
rose and fell in deep and shallow tides
of colour.
Sandplains rippled in splendour,
brilliant as coral reefs.
Beneath it all the SOIL
Sap and heartbeats ever reaching out
to hold it firmly
guarding its fragility - struggling to
mend its
scars after the flood,
bursting forth after fire,
tending it with reverence.
Man had a dream in the 1950s.
The bush flattened on its back
tanned in the sun.
Frightened fauna searching for shelter.*

*Sap hissed in tongues of flame.
 Tiny creatures lost their souls
 in great mushrooms of smoke higher
 than heaven.
 The sea of green, now deadly black,
 painted clouds of ash on every breeze.
 Machines tore across the SOIL.
 Grain poured from golden seas
 which stretched on and on into the
 distance.
 Treeless.
 Soft pads of the bush no longer ca-
 ressed the SOIL.
 Hard feet, hurrying feet, more and
 more feet -
 hungry mouths, bigger and bigger
 wheels
 of wealth bruised and broke the SOIL.
 Sobbing after rain it ran and ran
 leaving salty scabs
 and dead trees leaning against the
 rainless skies.
 Feverishly the SOIL
 gathered in great clouds
 escaping from the turmoil-
 and the wind wailed
 a requiem through the darkness...
 Wake up!*

AN ABORIGINAL PERSPECTIVE

At the end of the film, just before the credit roll, the film-makers have inserted a caption:

The film-makers acknowledge the Noongar people of the south coast of Western Australia whose tribal country this film depicts ... and whose story has yet to be told.

- Students could discuss:
 - Why this caption was appended to the film
 - If an Aboriginal perspective should have been included
 - How the 'love' for the land expressed by people in the documentary compares to or differs from Aboriginal relationship to country.

VIDEO RESPONSE

Susanne Dennings states 'We keep thinking we can beat nature. And nature is going to win in the end. It's winning now and it's going to win in the end.' This is Susanne's response to what she sees as human kind's ar-

rogance in dealing with nature.

- Ask students to articulate their own personal or creative response to the documentary and the research they have undertaken.

WEB LINKS

Australian Conservation Foundation
www.acfonline.org.au/asp/pages/home.asp

Follow 'Biodiversity', 'Land Clearing & Woodlands', 'Salinity' and 'Land Management' links

Map showing the Risk Hazard of Dry-land Salinity in Western Australia:
http://audit.ea.gov.au/ANRALand/land_frame.cfm?region_type=WA®ion_code=WA

South Coast Regional Initiative Planning Team www.script.asn.au

Wilderness Society
www.wilderness.org.au
 Follow links to the Wild Country program and Gondwana Link

Australian Bush Heritage Foundation
www.bushheritage.org.au
 Look for details of their Cherininup Creek Reserve

Malleefowl Preservation Group
www.malleefowl.com.au

Greening Australia
www.greeningaustralia-wa.org

Nature Base- Department of Conservation & Land Management (WA)
www.naturebase.net
 Follow the Fitzgerald River National Park link

Department of Agriculture WA
www.agric.wa.gov.au/default.pasp
 Follow the 'Environment' link

Gondwana Link
 A Program to ecologically reconnect the Fitzgerald River National Park
www.gondwanalink.org

Botanic Gardens & Parks Authority WA
www.kpbg.wa.gov.au
 Follow the 'Conservation, Biodiversity & Heritage' links

National Geographic Magazine
www.nationalgeographic.com
 Follow the Global 200 link to Mediterranean Forests, Woodlands and Scrubs

Men of The Trees
www.menofthetrees.com.au
 Follow 'Planting trees' and 'Fighting Salinity'

Department of Agriculture, Fisheries & Forestry – Australia: www.affa.gov.au
 Follow the Landcare or Salinity links

A Million Acres A Year

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Producers: Frank Rijavec, Noelene Harrison

Director: Frank Rijavec

Writers: Keith Bradby, Frank Rijavec

Narrator: Keith Bradby

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