Ending logging of old-growth forests: Key social and economic factors in Western Australia

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ABSTRACT: Over the past 30 years in Western Australia (WA), there has been heated debate about the future use of the remaining karri and jarrah forests in the south-west of the State. This debate revolves around policy proposals from two social movements: one wants to preserve as much of the remaining old-growth forests as possible, and an opposing movement supports a continued "sustainable" logging of the forests. During the time of conflict over forest policy in WA there has been a dramatic change in public attitudes toward the logging of WA's remaining native forests.

Ronald Inglehart (1977) proposed that individuals brought up in western countries under conditions of peace and relative prosperity since World War 2 would be the likeliest to have what he called post-materialist values. Following Inglehart's analysis, this paper documents select socio-demographic data from the Manjimup Local Government Area (LGA) since 1970 and compares them to the adjacent Augusta-Margaret River and Denmark LGAs. It argues that identified changes in particular factors (such as levels of university qualification and no-religious affiliation) in Augusta-Margaret River and Denmark over the past 30 years have assisted in the development of anti-logging groups in the south-west, and in the development of post-material values toward the forests now held by WA's population. The development of these new values in the Augusta-Margaret River LGA seems to be profoundly different to that of other Australian rural areas.

1 INTRODUCTION

My thesis research project looked at why two Western Australian social movement organisations (SMOs) on opposite sides of the logging debate continued to contest the forest policy issue after thirty years. Implicit in this focus is an understanding that other major Australian environmental debates were concluded more quickly. During my research I analysed Census data gathered by the Australian Bureau of Statistics (ABS) for the period 1971- 2001. I chose this starting point as it coincided with an intensification of the debate over the appropriateness of WA's forest policy following the formation of the Campaign to Save Native Forests (CSNF) in 1969 (Mills 1986). This paper reports the findings from my research and subsequent exploration of other data sets to

¹ The debate over the logging and woodchipping of native forests in Australia has been traced by Dargavel (1995) to the seminal publication by the Routleys of *The Fight for the Forests* (1973).

² See for examples of particular Australian environmental campaigns *A History of the Australian Environment Movement* (Hutton & Connors 1999).

investigate particular social and economic factors about the people living in the south-west of Western Australia. I utilise the New Social Movement (NSM) theoretical approach (Inglehart 1977; Maheu (Ed) 1995; Melucci 1980) and propose that the demographic and economic factors identified from the ABS data may provide an explanation for some of the changes in public attitude toward the logging of the remaining native forests in WA. These changes seem to be important factors that allowed the anti-logging SMOs to achieve the end of logging after a 32-year campaign. At the 2001 State election the Australian Labor Party gained power and swiftly moved to stop the logging of old growth native forests (*West Australian* 2001).

2 LITERATURE

While some authors contest the nomenclature of 'new' (Cohen 1985), most agree that there is something worth studying about the range of social movements (such as peace, anti-nuclear, gender and environmental ones) that have proliferated in the developed, Western societies since the mid-1970s. Cohen identified the rapidity of their formation, their replication in many Western countries and their impact on political systems as defining factors of these movements. The New Social Movement (NSM) literature assisted me in understanding how changes in public values affected the external political and social environment in WA and to explore how the changes in values are linked to particular socio-demographic changes in WA.

The labeling of movements involved in campaigning on issues such as the environment as 'new' is often argued against the approach that 'older' movements were seen as movements of the working class opposed to the power of 'capital' (Burgmann 1993). Hence, the NSM approach defied the earlier class-based understandings, such as Burgmann's, of social movements and focused on factors that developed new values. She claimed that NSMs have a middle class support base and their activists and intellectual core supporters were often well-educated public sector employees such as teachers. Further, Burgmann claimed that this class of people were immune from the commercial and economic pressures that were a characteristic of the older movements.

Berger *et al.* (1973) highlighted the importance of "intellectuals" or "elites" as being the social class that acted as a 'carrier group' for new ideologies and values in western societies. Likewise, Scott (1990), while recognising that the new politics appeal to more than class interests, stated that NSMs "are typically either predominantly movements of the educated middle classes, especially the 'new middle class', or of the most educated/privileged section of the less privileged groups." The involvement of society's well-educated sector is an important point that I explore in this paper. Inglehart's (1977) empirical analysis of surveys in the early 1970s in six European Community countries led him to propose that individuals brought up in western countries under conditions of peace and relative prosperity since World War 2 (such as Australia) would be most likely to have 'postmaterial' values.

According to Inglehart this values shift away from 'materialist' concerns about economics and physical security led to "the decline of elite-directed political mobilisation and the rise of elite-challenging issue orientated groups". In Inglehart's view, policy formation on many issues (such as the environment) had moved from that led by mainstream political parties with their traditional allegiance to labour (in Australia the ALP) or capital (the Liberal Party/National Party Coalition) to a situation whereby NSMs constructed new policy ideas and approaches. In other words, Inglehart suggested that changing values within a society lead to the emergence of new social advocacy organisations which would in turn shape new government policies, as the policy elite responded to these new pressures.

In Australia, Crook and Pakulski (1995) call "the environment", "the hot political issue of the late 1980s and very early 1990s, in Australia...". Crook and Pakulski's study reported that the logging of Australia's native forests was the second highest environmental concern after pollution. Pakulski and Crook (1998) cited other researchers' concerns with Inglehart's reliance on value categories as well as his inability to explain how new individual values translated into a coherent environment movement. However, Gundelach (1984) supported Inglehart's ideas of postmaterial

values and developed them further by arguing that "new" movements had common features and are related to the transition from a capitalist society to a post-industrial one. Inglehart and Abramson (1995) concluded that the major long-term force driving the increase in postmaterial values was generational replacement. They reported that about 40 per cent of the adult European population were replaced between 1970 and 1990 and argue that these older people were replaced with younger people with more postmaterial values. I utilise this idea of different generational values to understand changes in the south-west of WA.

Table 1. State Ranking of the Importance of Protecting the Environment

	WA	SA	VIC	ACT	NSW	TAS	QLD	NT
Extremely Imp	49%	49%	48%	47%	46%	45%	42%	67%
Quite Import.	45%	41%	43%	45 %	45%	40%	48%	17%
Not Import.	6%	10%	9%	7%	9%	16%	11%	17%

(ANU 2002)³

3 RESEARCH SETTING

Quekett (2000) suggested that WA people were "the most environmentally-aware people in Australia". Table 1 presents data from the 2001 Australian Election Survey to show that higher percentages of WA electors agree that environmental issues are extremely important to them.

In a national poll conducted during its inquiry into the Australian forest industry, the Federal Government's Resource Assessment Commission (RAC 1991) found that the majority of Australians were in favour of the halting of logging in National Estate forests, even if it caused economic hardship. They also found that the poll respondents most frequently nominated "the environment" as a national problem, surpassing economic issues such as unemployment and interest rates. A multivariate analysis of their survey data indicated that involvement in social movements and personality values were the strongest predictors of individual attitudes towards the forests. These results also confirmed Inglehart's earlier findings that people aged over 55 years have a far less postmaterial orientation than younger age groups. The RAC research is unique in that it is the only Australian research that has utilised Inglehart's framework in an Australian setting. One critical outcome of the RAC's research in relation to attitudes to environmental issues was that it found that opposition to using native forests for economic purposes (eg logging and woodchiping) was strongly related to socio-economic factors such as people having a university degree, being female and having visited a native forest in the previous year.

The Australian Bureau of Statistics (ABS) has been tracking Australian environmental attitudes every two years since 1992 with similarly worded questions. Its latest report provides data over a range of issues and finds that Australians with a higher weekly household income have greater concern for environmental problems. Similar to the RAC (2001) poll, the survey found that concern for environmental problems increases with education levels- 70 per cent of people with skilled vocational training expressed environmental concern rising to 90 per cent for people with postgraduate university degrees. Both of these findings from the ABS support Inglehart's findings that income and education levels predict postmaterial attitudes toward the environment.

³ The wording of the question was: "Here is a list of important issues that were discussed during the election campaign. When you were deciding about how to vote, how important was each of these issues to you personally?- Environment". These results include the responses from only 6 voters from the Northern Territory. That NT sample was only 15 people.

The data reported below examine some of the changes that occurred in the south-west region of WA during the period 1971-2001. The total population in WA in 2000 was about 1.89 million people with most (1.39 million) residing in the capital city of Perth and its surrounding suburbs (ABS 2002). Approximately 19,000 people lived in the south-west region which contains most of WA's remaining native forests- the small area bounded by the coast and an imaginary line between Busselton in the west and Albany in the south. This paper focuses on changes in three local government areas (LGAs) containing the majority of WA's native forest reserves (Manjimup) and on either side of it (Denmark to the east and Augusta-Margaret River to the west) about 400km south of Perth.



Figure 1. WA's South-west LGAs

4 RESEARCH RESULTS

4.1 *Population changes*

Figure B identifies the static nature of population growth within the Manjimup LGA over the 1971-2001 period compared with the LGAs on either side of it. The lower population growth rate of 15 per cent over the 30 year period for Manjimup can be explained by two factors: the greater use of technology in lieu of labour in logging forests and the overall declining output of the WA timber industry. The higher growth rate of the Augusta-Margaret River LGA to the west (320 per cent) can be explained by the dramatic growth of new industries in that region (e.g. the tourist, mining and vineyard industries, described in more detail below). Figure 2 indicates that all three LGAs suffered a slight population slump in the early 1970s and their later population growth seems to coincide with the period after the first vineyards were established in the region in 1968 (Zekulich 2002).

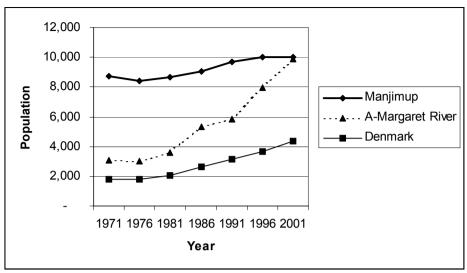


Figure 2. South-west Regional Population Growth (1971-2001) (ABS 1976; ABS 1986; ABS 1996; ABS 2002)

The higher population growth in the Denmark and Margaret River LGAs seems to be due to people migrating to these regions rather than from internal population growth. This is shown in Table 2 which compares the numbers of people born in each LGA in 1971 and the number in the corresponding 30-34 age group in 2001. This table shows that in 2001 there were less people in this age group in Manjimup than were born in 1971, while this cohort has nearly tripled in the Augusta-Margaret River LGA due to migration.

Table 2. LGA Comparison of Population Cohorts (1971-2001)

Local Government Area	No. of People in 0-4 Age Group (1971)	No. of People in 30-34 Age Group (2001)	% of Original 1971 Pop. Group in 2001
Manjimup	968	670	69%
Denmark	145	271	187%
Augusta-Margaret River	286	804	281%

(ABS 1971; ABS 2002)

Migration to these areas can be explained by a number of factors, including the greater number of Perth people retiring to live in the south-west, a beautiful region that is close to both the coast and the remaining native forests. Additionally, younger and better educated people were attracted by new employment opportunities in the new industries in the region. The economic growth over the period 1970-2000 has seen the coastal region between Bunbury and Augusta host a new range of industries, services and employment opportunities. Figure 3 compares the population distribution for all three south-west LGAs and shows a higher percentage of the population in the

Margaret River LGA for people in the prime employment age cohort (30-50 years). This migration to the Margaret River and Denmark LGAs will have brought people with higher education levels, such as professional support service staff (eg doctors, teachers, government staff and managers)-people who are likely to be more supportive of postmaterial values toward the environment (Burgmann 1993; Scott 1990).

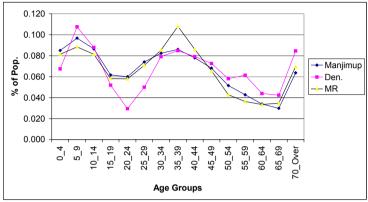


Figure 3. LGA Population Distribution (1996) (ABS 1996)

4.2 Education

Authors writing about NSMs have found an association between education levels and attitudes supportive of these NSMs. Table 3 identifies an increase in university qualifications⁴ for all three south-west LGAs over the last 30 years. In 1971Manjimup had a similar level of residents with university qualifications compared to the Margaret River LGA and twice that of the Denmark LGA. By 2001 it had less than 6 per cent of its residents with university qualifications while the two LGAs on either side had nearly 50 per cent more.

Table 3. Level of University Qualifications in LGAs (1971-2001)

	1971 Qualifications		2001 Qualification	
Region	No.	%	No.	%
Manjimup	56	0.6	572	5.7
Denmark	6	0.3	402	9.2
Augusta- Margaret River	24	0.8	911	9.2
WA	12,728	1.2	174,001	9.4
Australia	177,639	2.0	1,918,913	10.1

(ABS 1971; ABS 2002)

⁴ These ABS education figures include people with bachelor degrees, postgraduate diplomas and higher degrees (eg PhDs).

4.3 Religion

An important demographic change is the reported religious affiliation of those living in all three LGAs. In 1971 the south-west LGAs had a similar proportion of Christians and those reporting no religious attachment to the figures for WA and Australia as a whole⁵. However, by 2001 all three south-west LGAs had fewer Christians and more people with no religious attachment than either the WA or Australian average (Table 4). Manjimup, of the south-west LGAs, was the closest to the national and State averages with 60 per cent reporting themselves as 'Christian' compared to the State average of 63 per cent. Figure D tracks the changes in religious affiliation for the three south-west LGAs over the 30 year period. This indicates that the changes in religious affiliation plateaued in 1996 but remain at very high levels compared to other WA and Australian LGAs. The Denmark LGA has nearly twice the national average of people reporting no religious affiliation.

Table 4. Reported religious orientation (1971-2001)

1971	Christian		Other Religion	No Religion	
Region		% of Pop.	% of Pop.		% of Pop
Manjimup	7,685	88%	0.1%	595	7%
Denmark	1,518	85%	0.1%	131	7%
A-Margaret River	2,650	85%	0.0%	254	8%
WA	869,878	84%	0.6%	90,361	9%
Australia	10,990,379	86%	0.8%	855,676	7%

2001	<u>Christian</u>		Other Religion	No Religion	
Region		% of Pop.	% of Pop.		% of Pop.
Manjimup	6,073	60%	0.5%	2,445	24%
Denmark	2,138	49%	1.4%	1,364	31%
A- Margaret River	5,059	51%	1.0%	2,782	28%
WA	1,160,787	63%	2.2%	361,011	19%
Australia	12,764,342	67%	2.9%	2,905,993	15%

(ABS 1971; ABS 2002)

⁵ Respondents are asked to identify their religion by the major beliefs (e.g. Christian, Buddhist) as well as 'no religion' which includes Agnosticism', 'Atheism', 'Humanism' and 'Rationalism'.

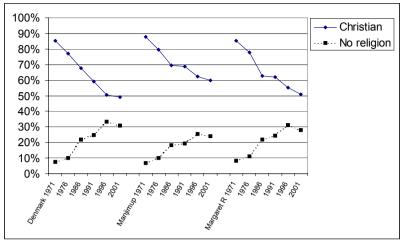


Figure 4. Changes in Religious Affiliation (1971-2001) (Adapted from ABS 1971; ABS 1986; ABS 1996; ABS 2002)

5 INDUSTRY CHANGES IN THE SOUTH-WEST

By the end of the 20th Century, the export value of timber products (excluding woodchips) had fallen dramatically to \$19 million, or less than 0.1% of WA's total exports (ABS 1998). At the beginning of the 20th Century timber exports represented about 10-12% of WA's annual exports and in 1910 they were valued at \$500 million (in 2000 Aus\$) (Forestry Department 1969). Other export commodities developed in the later part of the 20th Century, such as iron ore (\$3,800 million per annum), petroleum products (\$3,800 million per annum) and natural gas (\$1,900 million per annum), had annual export values far greater than those for timber exports (ABS 2002). Within the period 1920-70 timber had moved from a critical WA export product to a peripheral one.

A report by the WA Tourism Commission (2001) indicated that the value of domestic visitors to the south-west region was as high as \$422 million, with over 1.5 million domestic visitors staying overnight. Importantly, in terms of my research, more than 76 per cent of the visitors to the south-west were from the Perth region with 90 per cent travelling to the region by car (WATC 2001). Nearly half of these domestic visitors to the region had an annual household income of more than \$52,000 per annum- substantially higher than the average annual income for WA. These figures indicate the easy access and use of the south-west region for holidays and recreation by middle class and wealthy people from Perth. Popular activities enjoyed by these domestic visitors included visiting parks and the forest. This indicates a strong attachment between Perth residents and the natural attractions of the south-west. The Premier reported that by the late 1990s the tourism industry employed 7,000 people in the south-west while the forestry industry employed just over 1,000 (Hansard WA Legislative Assembly 4 May 1999).

Overseas grape export volumes from WA increased to more than 20 times that of 1990 levels (ABS 2001b). The export value of \$31.1 million (DLGRD 2002) was twice than that reported for timber exports in the same period (CALM 2000). The economic value to WA, though, is not limited to its overseas exports: interstate wine exports in 2000 were valued at \$72.3 million (DLGRD 2002) and the wine industry also contributed to the growth of the south-west tourism

⁶ Some people made more than one visit to the south-west and it was visited by 72,000 international visitors.

industry outlined above. The wine industry's value to south-west regional economies is also important in terms. Wine-related employment is centred on the Margaret River LGA, which has nearly 50 per cent of the south-west wine employees.

6 FURTHER DATA ON KEY FACTORS

The information gathered above indicates that the changes in anti-logging attitudes between 1971 and 2001 in the south-west LGAs can be explained by an influx of younger, better educated people who came to work in the new non-forest based industries. In terms of the NSM literature, important factors are the high level of no religious affiliation, gender and education levels. The current level of no reported religious affiliation in the south-west LGAs are unusual. The only other LGAs in WA with levels above 30% are in remote LGAs with smaller mining populations.

The link I suggest between religious affiliation and attitudes to the logging of forests in WA is supported by the results obtained from the national 2001 Australian Election Study (Table 5). This shows that voters reporting no religious affiliation have a far higher concern about the logging of native forests than do those with various Christian religious affiliations. More than 86 per cent of those surveyed with no religious affiliation rank their concerns for the logging of forests as fairly or very urgent (items 3 to 5 on a 5-point scale). This survey also indicates that those with post-secondary education qualifications have a greater concern for the logging of native forests than those without one (Table 6), supporting my proposal that rising levels of higher education in WA also helps to explain the value change toward the logging of native forests in south-west LGAs between 1971-2001.

Table 5. Concern for Logging Expressed by Religious Affiliation

		NO REL.	CATH	ANGL	UNITING	ORTH	PRESB
Not urgent	1	3.2%	5.0%	5.1%	9.6%	3.4%	8.3%
	2	9.5%	14.0%	12.7%	9.0%	19.0%	15.5%
Fairly urgent	3	15.6%	27.7%	26.9%	28.8%	27.6%	26.2%
' '	4	20.4%	20.0%	17.2%	23.1%	17.2%	16.7%
Very urgent	5	51.3%	33.3%	38.0%	29.5%	32.8%	33.3%

 $(ANU 2002)^7$

Table 6. Concern for Logging Expressed by Education Qualification

		POSTGRAD	BACH	DIPLOMA	OTHER	NONE
Not urgent	1	1.7%	2.9%	4.9%	4.2%	7.8%
_	2	7.5%	15.0%	11.5%	14.1%	10.9%
Fairly urgent	3	27.0%	17.0%	21.3%	24.1%	28.1%
	4	21.3%	24.8%	19.7%	20.5%	16.7%
Very urgent	5	42.5%	40.3%	42.6%	37.1%	36.4%

(ANU 2002)

⁷ The wording of the question was "In your opinion, how urgent are each of the following environmental concerns in this country?- Logging of forests."

7 CONCLUSION

One clear finding reported in this paper has been the identification of major demographic changes in the south-west LGAs on either side of the Manjimup LGA. Intra-state migration to the south-west from Perth has included people from the Perth region with a university education, without a religious affiliation and presumably new values in relation to the remaining native old growth forests. Many of those I interviewed confirm an increase in the number of anti-logging local environment groups in the south-west (e.g. the South Coast Environment Group). Data from a national survey (ANU 2001) support my finding that people with no religious affiliation and a university education strongly support the further logging.

Obviously, religious affiliation and spirituality are different, but related, concepts. The information I have presented in regard to the recent development of a new anti-logging forest policy in WA suggest that the link between this factor and a spiritual attachment to native forests and the broader natural environment is worthy of more detailed research. As the eminent British sociologist Richard Tawney said "Since man is, of his nature, a religious animal, the alternative to religion is rarely irreligion; it is a counter-religion".

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