

# **Understanding the Macro-context of Teaching Environmental Education: A Case Study from Queensland, 1989-1991**

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Any discussion of curriculum should consider the social setting, especially the relationship between schools and society and its influence on curriculum decisions.... Curriculum decisions take place in a complex social setting, through demands that are imposed by society and filter down to schools (Ornstein and Hunkins, 1988: 114).

Context is an important element in understanding the nature of the curriculum in any field and its goals. Thus, Combleth (1988: 89) describes curriculum as "an ongoing social activity shaped by various contextual influences within and beyond the classroom". She argues that curriculum is a "contextualized social process" which:

... cannot be understood adequately ... without attention to its setting or context. Curriculum is contextually shaped.... (C)urriculum emerges from the dynamic interaction of action, reflection and setting (Combleth, 1990: 6-7)

Similarly, Berlak and Berlak (1981: 24) write of the need to investigate teachers' decision making in terms of "the social, cultural and political forces and structures that are omnipresent in all social situations". Sharp and Green (1975) argue that comprehensive explanations of teaching require an investigation of the "sociology of situations, their underlying structure and interconnections and the constraints and contingencies they impose" (p. 25).

The importance of contextual understandings is a challenge to environmental educators because of the central focus in environmental education in challenging dominant social structures. Such structures support the "business as usual" approaches to development which are the root causes of environmental problems. Environmental educators require skills in structural analysis in order to teach "against the grain" by exposing and critiquing dominant structures. This is the first step in helping to create social contexts that may foster structural transformation.

The critical curriculum research literature contains a number of models for describing and analysing the influence of context on teaching (Pollard, 1982; Fieman-Nemser and Floden, 1986; Combleth, 1988, 1990). Together,

these models identify two related and nested levels of context: (a) the broad sociocultural context and the administrative context of the education system which comprise the macro-context of teaching, and (b) the school (or institutional) context and the classroom (or instructional) context which form the micro-context.

There is abundant advice in the qualitative research literature on strategies for understanding the micro-contexts of schools and classrooms (e.g. Walker, 1985; Woods, 1986). However, there is little guidance for those who wish to understand the macro-contexts of their teaching. This paper is a response to that need and describes a model for examining the macro-context of teaching using examples from a study of teaching environmental education in Queensland. In particular, the examples focus on the teaching of environmental education through a Year 11-12 semester unit in the Queensland geography syllabus called *People and the Environment*. Context is time-specific. The period covered by the examples in this paper are the three years from 1989 to 1991. This period was selected because the change of government in Queensland that occurred in this period provides an opportunity to explore effects of historically embedded practices in education which are very important components of the macro-contexts of teaching.

Research in environmental education is under-theorized from this critical macro-sociological perspective. It has neglected the nature of the global political economy, its effects on the educational decisions of governments, and the ways in which such decisions are directed to schools and teachers through education system bureaucracies. The development of a critical approach to analysing the construction of "pedagogic discourse" by Bernstein (1986, 1988) provides a model around which critical research on the influence of context can proceed. Bernstein posits that social and economic processes and trends in the world-economy have a strong influence on the policies of governments. Governments use education as one agency for social control and reproduction. They use their educational bureaucracies to contextualise the educational implications of global and national processes in order to produce the educational policies which Bernstein refers to as "official pedagogic discourse". Official pedagogic discourse is then re-contextualised through the education system in the form of syllabuses, guidelines, traditions, rules and procedures. These limit schools and teachers to providing students with an education based upon a "pedagogic discourse of reproduction".

However, reproduction is not even or uncontested. Bernstein describes his model as open to a limited degree of influence from "below". This can arise from potential or actual conflicts between the values of "the primary cultural context of the student (family, community, peer relations) and the re-contextualising principles and practices of the school" and student resistance (Bernstein, 1986: 218, 219). Bernstein also describes conflicts and inertia between the political and administrative agents in governments and education systems. These provide structural contradictions within which a range of

opportunities for critical teaching, as well as constraints, may be identified.

The examples of macro-context that are described here are based upon the way the sociocultural and administrative contexts of teaching provide both "official pedagogic discourse" in environmental education to geography teachers in Queensland, and a range of opportunities and constraints on their teaching for the critical values and social action objectives of environmental education. Two dimensions of macro-context are described. The first is the sociocultural or broad societal context of teaching at global, national and state levels. The second is the administrative context of the Queensland education system and the course accreditation, assessment and moderation procedures of the Board of Senior Secondary School Studies which has the statutory authority for managing the Year 11-12 curriculum in Queensland.

### **The sociocultural context**

Cornbleth (1990: 6) defines the sociocultural context of teaching as "the environment beyond the education system" including "the demographic, social, political and economic conditions, traditions and ideologies, and events that actually or potentially influence curriculum." Thus, it includes the global, national and state levels in the macro-context of teaching. Together, these aspects of context constitute what Bernstein described as the "contextualising" and "re-contextualising" fields for the development of the "official pedagogic discourse" of education policies.

#### *The global context of teaching environmental education*

Two aspects of the contemporary global situation are relevant to teaching environmental education. These are (a) the operation of the world as an economic system and its division into groups of nations that display a variety of types of political economy, and (b) the growing popular awareness of the scale of human impacts upon the natural environment in many parts of the world.

There are a number of ways of describing the current international situation and its political and economic groupings. The ideological orientation of these descriptions range from the pro-capitalist work of Rostow (1978) to the Marxist writings of Rymalov (1978). Steering a path between these opposing views, and founded upon the goal of critical social science of "contribut(ing) to the transition from capitalism to something more humane and democratic", is Wallerstein's world-systems theory (Taylor, 1986: 271).

Wallerstein's world-systems framework is useful in describing the global economic and political context of teaching environmental education for two reasons. First, Wallerstein (1984) locates the causes of poverty and environmental degradation in the nature of the global economic order. Second, his model contributes to an explanation of Australia's role in the world-economy as an exporter of natural resources and the particular environmental ideology that this has engendered, especially in resource-rich states such as

Queensland.

In Wallerstein's view, the present capitalist world-economy began with the fall of feudalism in the sixteenth century and was consolidated by the mercantile capitalism of the early colonial period that began to link many parts of the world. The industrial revolution and global spread of colonialism in the nineteenth century expanded the world-system so that today the world's people and nations are integrated into a single network of economic production and trade in which commodity chains "crisscross the globe linking producers of raw materials with processors, manufacturers and consumers" (Huckle, 1988: 20).

P. J. Taylor (1986: 270-271) identifies two characteristics of the contemporary world-system that are relevant to an understanding of the global context of teaching environmental education. First, no country is large enough to control the world-economy although individual economic super-powers (such as Japan the United States and the European Community) and transnational corporations are able to control large sectors of it at various times. Second, there is a hierarchy of countries within the world-economy in which four groupings can be identified. Each displays the characteristics of a particular political economy. These groups are: (a) the affluent *core* industrial nations of the First World which largely control the extractive, industrial and financial industries of the world; (b) the Third World countries on the *periphery* of the world-economy; (c) the *semi-peripheral* countries which display characteristics of both core and peripheral economies in that they are sufficiently large and resource rich to have developed a standard of living similar to that found in core countries, but which lack indigenous capital and so remain dependent upon investment decisions and capital from core countries; and (d) the *state-capitalist* planned economies of the Eastern bloc that are now seeking greater integration into the world capitalist economy with the decline of Communist Party power from late 1989.

Critical environmental education is based upon a belief that the root causes of the global ecological crisis stem from the drive for profit and competition in the operation of the world-economy (Huckle, 1991). Of particular concern to environmental educators is the way in which the particular political economies of the four groupings of countries give rise to different sorts of environmental problems. For example, the affluence of the core and semi-peripheral countries drives a consumer ethic that leads to the over-consumption of resources, high levels of pollution, and severe waste disposal problems. Thus, the 24 core and semi-peripheral nations that are members of the Organization of Economic Co-operation and Development (OECD) consume a disproportionate amount of the world's resources and produce most of the world's pollution. A 1990 OECD report indicated the the 24 OECD countries represent only 16 percent of the world's population but own 78 percent of road vehicles, consume 50 percent of the world's energy and account for the destruction of 73 percent of the world's forests in timber

imports (in Brown 1990). The report noted the relationship between affluence, consumption and environmental problems when it stated that:

Development seems to encourage preference for private cars, increased congestion and wider dispersion of leisure activities and related environmental problems.... A critical issue is how to prevent the general increase in disposable incomes from being transformed into environmentally harmful consumption patterns (quoted in Brown, 1990: 9).

On the other hand, in the impoverished countries on the periphery of the world-economy, poverty causes people to over-exploit their natural environment in order to survive. Timberlake (1985) describes the result as a form of "environmental bankruptcy" in which pastures are over-grazed and soils eroded to produce rapid desertification, forests and mineral resources are exploited and sold cheaply to transnational companies, and cities remain under-serviced and unhealthy due to poverty. Like peripheral countries, semi-peripheral countries that lack an industrial base must exploit their natural resources also in order to pay for their imports of processed goods. In the fourth group of countries, the planned state-capitalist countries of the Eastern bloc, an over-riding concern with economic growth and the lack of a clear ecological perspective in Marxist ideology has caused large scale problems of industrial pollution, particularly water pollution, air pollution and acid rain (Komarov, 1978; Smil, 1984; Artobolevskiy, 1991).

There are many common aspects of the global ecological crisis despite the varying causes in different parts of the world. Generally, these relate to the unsustainability of present modes of food production, levels of resource extraction and demands for consumer goods. The integration of the world-economy into global patterns of production and consumption based upon resource-intensive economic growth (Corson, 1990: 1-5; Pirages, 1990) means that many supposed solutions to the problems caused by unsustainable development often become the cause of new or intensified problems elsewhere in the world (World Commission on Environment and Development, 1987: 4).

Increasingly, however, people in many parts of the world have become conscious of the severity of the human impact on the natural environment and have started to search for sustainable ways of using the earth's resources. This claim is supported by data from an international survey of perceptions of environmental problems commissioned by the United Nations Environment Program, and which interviewed over 9,000 citizens and leaders in sixteen nations spread across all types of political economy (UNEP, 1988). The survey found that most people in all the nations surveyed expressed serious concern about the quality of the environment, while ninety percent overall favoured strong national and international action to curb pollution and repair environmental decay. This growing individual awareness across the world is

matched by international actions to solve environmental problems through agencies such as the United Nations Environment Program and the promotion of sustainable development by the World Commission on Environment and Development (1987) and through the development of the Second World Conservation Strategy (IUCN, UNEP and WWF, 1990). However, Corson (1990: 2) warns that this "global awakening" is often based upon shallow reasoning in that it does not yet encompass a general understanding of the necessary changes "in the structures of societies and government, ... in patterns and directions of economic activity, and in the life styles (sic), rights, and responsibilities of the individual". This naivety might be seen as a reflection of the strength of the Dominant Social Paradigm in most people's thinking and of the scale of the task of environmental education in challenging a worldview that is sustained by the powerful forces that underpin the world-economy.

Thus, the global context of teaching environmental education is influenced by many changes on the international scene. Global economic integration is increasing as are pressures for increased production to remedy the cycle of economic decline that many countries are facing. These economic processes are causing increased resource depletion and environmental degradation. At the same time, many people in the world are awakening to the severity of these problems and are searching for ways of solving them both at the government level and in their own lives. However, few people seem to be aware of the scale of changes that are needed to address the root causes of environmental problems. Thus, the global context of teaching environmental education presents a range of enabling and constraining influences. Although the global context may seem remote from the individual teachers and classrooms, its influence is mediated through its impacts on national and state contexts of teaching.

#### *The national context of teaching environmental education*

Several aspects of the national context of teaching environmental education were noted in the review of the global context. These were Australia's location as a semi-peripheral country in the world-economy and the environmental ideology that stems from dependence upon resource industries for national livelihood. These aspects of the national context are detailed in this section. Other aspects of national context that are influential include: the nature of environmental attitudes in Australia, inconsistencies in governmental and individual responses to environmental problems, and the effects of government economic policies on education.

As a semi-peripheral country, Australia is integrated into the world-economy as a producer and exporter of the products of agriculture, forestry and mining and an importer of manufactured goods and capital. As such, Australia's economy is similar to that of many Third World peripheral countries which must rely upon demand levels and commodity prices set by the

importing countries in the core for their national economic survival. With little real sovereignty over their economies, countries that rely upon commodity exports, such as Australia, are affected quite severely by the cycles of boom and depression in the world-economy. This situation is exacerbated in Australia by the low level of local capital accumulation and the consequent dependence upon overseas investment and management decisions by Europeans, Japanese and North Americans in the core. The result is that transnational companies control more than half of Australia's businesses while, in some sectors such as the Queensland mining industry, the level of overseas ownership is eighty percent (Crough, Wheelwright and Wiltshire, 1981). Huckle (1986: 16) describes the effects of such dependency on Australia's economic and environmental future, especially in times of economic decline:

Australia is the second most penetrated economy in the world and, as the degree of ... penetration continues to increase, more and more of Australia's resources and productive capacity will fall under the control of few decision-makers, located offshore.... (This) reduces the Australian state's power to control many aspects of economic and social policy, including that relating to the environment. Dependency brings a growing conflict between the need to conserve resources, reduce pollution, and improve people's environmental well-being, and the need to revive the economy by attracting yet more investment with environmentally damaging consequences.

Heathcote (1972) and Fien (1988) have traced the effects on environmental attitudes in Australia that have paralleled this dependence on resource exploitation. Both write of the period from the mid-nineteenth century to the 1960s as a period when resources were exploited under an ethos of national development and economic growth. This ethos remains strong in the environmental attitudes of many people, especially in states such as Queensland and Western Australia whose economies are still very reliant upon the export of natural resources. Heathcote and Fien also describe the changes that occurred in the dominant environmental ethos in the last two decades as capitalism and governments responded to rising popular awareness of the scale of environmental problems. This change mainly involved increased government regulation of industry to minimise environmental damage, government actions to improve degraded environments, the expansion of the land area under various forms of conservation protection, and the involvement of governments as arbiters of environmental disputes. However, while governments were taking a greater role in environmental management, many Australians failed to see the connections between their use of resources, individually and collectively, and the causes of environmental problems. Fien, (1988: 22-23) describes this dilemma:

The need for continued economic growth and the other social causes of the environmental crisis have rarely been questioned.... (T)he public mood has remained one of expansion and economic growth; and the dominant national ethos of materialism has favoured consumer-oriented lifestyles over environmental considerations of most Australians. This does not mean that, as Australians, we are not proud of our environment or keen to see it managed wisely. It is just that our concerns have been compromised by the failure of the management vision to involve us, as individuals, families and communities, in recognition our responsibilities for the present condition of the Australian environment and its future.

The results of the largest survey of environmental attitudes in Australia provides data which supports this generalisation (Department of Arts, Heritage and Environment, 1987). Of the 35,000 households interviewed in April 1986, only 46.9 percent expressed any degree of positive concern about the environment (p. 51), while only 5 percent claimed to be "significantly concerned" (p. 52). The survey revealed a low level of awareness of "unspectacular" or unemotive environmental problems such as soil erosion and salinity, and of urban environmental concerns such as architectural heritage and waste disposal (p. 51). The survey sought responses on recycling practices as a measure of how willing people were to reduce the impacts of their lifestyles on the environment. Less than one in three households reported that they compost garden refuse while less than one in five reported recycling aluminium and steel cans (p. 53). These results from a 1986 survey may be dated and paint a worse picture than is currently the case given the high level of attention given to environmental matters in the second half of the 1980s. Thus, 1989 and 1990 surveys results indicate that 72 and 86 percent, respectively, of the Australian population express some degree of concern about the environment (in Henry, 1991: 5). However, these studies were based upon quite small samples and did not validate answers to questions about levels of concern with questions about the environmental practices of respondents.

Young people of secondary school age are among those who tend to express a high level of concern about the environment. Although there has been little empirical research on youth attitudes to the environment to date, their high level of concern is evident in the lyrics of popular music and other aspects of youth culture, and in the formations of environmental groups in schools and out-of-school groups such as the Environmental Youth Alliance in most major cities. However, youth culture in Australia is heavily influenced by consumerism and peer expectations and caution must be exercised in making claims about the influence of young people's attitudes towards environmental matters on the context of teaching for ecologically sustainable values. Indeed, in the 1986 national study of environmental attitudes, the level of concern for the environment expressed by the 15-24 age group was second lowest only to



the attitudes of people aged over 65 (Department of Arts, Heritage and Environment, 1987: 57). In contrast with this finding, a 1990 survey of environmental attitudes in Queensland revealed that nearly half of the respondents in the 18-24 age group surveyed expressed a high level of concern over several specific environmental issues (Daniels and Brown, 1990: 10-11).

Nevertheless, the actions of the substantial number of Australians who became increasingly active in environmental protection over the last twenty years cannot be ignored. Their actions have ranged from local community campaigns to major initiatives to preserve wilderness areas "threatened" with development, such as Lake Pedder, South West Tasmania, North Queensland rainforest and Kakadu. These campaigns have led to the increasing politicisation of environmental issues in Australia, and the use of public controversy and direct action, as well as conventional political strategies of lobbying and electoral campaigns, by the environmental movement in order to achieve its goals. The conflict-based nature of environmental politics during the 1980s may have lost the environmental movement some support. Nevertheless, in 1986 over 500,000 people were members of environmental groups in Australia (Department of Arts, Heritage and Environment, 1986: 2).

Political parties have endeavoured to respond to the increase in public expressions on environmental concern by incorporating "green" concerns into their party platforms. These include minor political parties such as the Australian Democrats, the Rainbow Alliance and even attempts to form a Green Labor faction (Greenall Gough, 1989). The federal Labor government has sought to project a pro-environment image since the late 1980s also. Its actions have included a major national statement on the environment, *Our Country, Our Future*, by the Prime Minister in July 1989 (Hawke 1989), the campaign by Australia to prevent mining in Antarctica and to have the region declared a world park, major schemes to redress soil erosion and revegetate large parts of Australia, actions to redress greenhouse gas emissions both internationally and in Australia, and the development of a consultative process to plan an ecologically sustainable development policy.

However, there is a tension between the Australian government's environmental record and its economic policies. The economic goals of the Australian government are "to lower inflation, increase productivity and economic growth, and more fully internationalise the Australian economy" (Keating 1990). Halsey (1989) contrasts these economic goals with the ecological imperatives of self-sufficiency, sustainable economic management and the conservation of resources in this way:

(A) firmer commitment to the doctrine of free trade and productivity (are seen) as two of the great planks of national survival... (T)he national drive for greater wealth generation is evidence of the belief in the saving power of economic growth.

Growth in production and the consumption of goods and services at an

ever-increasing rate are seen as the way out of the (economic) situation we are in today....

From an environmental point of view, economic growth perpetuated in an increasing deregulated production and trading arena, is a recipe for certain disaster. Over the long haul ..., insatiable growth will lead to a steady and measurable decline of ... planet earth (pp. 148-149).

Halsey argues that the economic policies of the Australian government have educational implications. He quotes from the influential government report, *In the National Interest: Secondary Education and Youth Policy in Australia*, to illustrate the ways in which the government is seeking to harness education to its economic goals:

There are three principal ways in which the relationship between education and the economy is fashioned. The first is through the knowledge, skills and attitudes which education develops and which are utilized in the economy. The second way is through the qualifications which education offers.... The third aspect of the relationship operates through the labour market. In a well-ordered relationship between education and the economy there should be consistency in the way these three elements of the relationship impinge on education. If consistency applies, the skills and knowledge which schools provide will be valuable for the economy (quoted in Halsey, 1989: 148).

Thus, the Australian government has sought to use its economic powers to encourage state education systems to reconsider the goals of schooling and to direct them towards making students aware of the importance of industry and their skills in specific vocational areas in order to help the economy become more productive and internationally competitive. Halsey argues that such policies have caused "a dramatic overhauling of the curriculum" throughout the 1980s with a resultant increased emphasis on science and technology and the development of entrepreneurial attitudes and skills (Halsey, 1989: 148).

The national context of teaching environmental education is one of tension and contradiction. On the one hand, some aspects of the national context are supportive of teaching for ecologically sustainable values and lifestyles. These include: the growth of the environmental movement, the pro-environmental attitudes of many young people, and increasing government involvement in environmental regulation and improvement. On the other hand, various aspects of the national context constrain the teaching of environmental education. These include: inconsistencies between public expressions of environmental attitudes and related lifestyle choices and behaviours, government economic policies that encourage economic growth and unsustainable resource development practices, and education policies that

favour economic rather than environmental goals.

### **The state context: The political, economic and social context of Queensland**

The state context of education provides the link between the sociocultural context and the administrative context of teaching. This is because education is primarily a state responsibility in Australia. This section describes aspects of the sociocultural context of life in Queensland between 1989 and 1990. The next section describes the administrative context provided by the education system in Queensland. The sociocultural and education system dimensions of the state context are closely related, and are separated only in order to clarify the roles and influences of each one.

The dominant influence on the sociocultural context of the state of Queensland over the last three decades has been the dominance of the National Party in government. This party ruled Queensland as the senior member in a conservative coalition with the Liberal Party from 1957 to 1983 and then, as the sole party in government, from 1983 to December 1989. The social policies enacted in this thirty-two years of conservative rule in many ways were a continuation of those of right-wing Australian Labor Party governments which largely controlled Queensland politics from 1915 to 1957 (R. Fitzgerald, 1984a). However, the National Party, in government, especially under its leader, Johannes Bjelke-Petersen, who was the Premier of Queensland for nearly twenty years from 1968-1987, distinguished itself from previous state governments, and from governments elsewhere in Australia and overseas that espouse a commitment to democratic values, by a manipulation of the social and political structures of the state to maintain itself in power and to further the economic interests of its supporters. Coaldrake (1989) has described how the National Party failed to distinguish between the interests or the roles of the "party", "government", or "parliament" to the extent that the "entire institutional fabric of Queensland" was "manipulated - in fact, utterly politicised - in the process of broadening the support of the National party (sic) and maintaining it in power" (pp. xiii-xiv). Queensland, in effect, was a "one-party state" (Coaldrake, 1989: 128-153), in which:

The National's attitude was dismissive of critics and utterly resistant to change; it was also one in which the incumbent regime came to regard itself not as providing stewardship of government, but rather, sole ownership of it. Public and private interests were not distinguished, and the legitimate role of the political Opposition to provide criticism and an alternative viewpoint was neither recognized nor understood; meanwhile those who criticised the one-party line could expect to be muzzled and neutralised (Coaldrake, 1989: 162).

Several political scientists, historians and journalists (e.g. Metcalfe, 1984; R.

Fitzgerald, 1984a; Dickie, 1988; Coaldrake, 1989) have analysed the strategies used by the National Party to build and maintain its control of government and social life in Queensland. These included: a relatively weak and disorganised Australian Labor Party in Opposition and an often timid Liberal Party as coalition partner; the civil and criminal prosecution of government critics, including members of the Opposition, using government money to fund government members' legal expenses; a docile press controlled by threats to withdraw government press advertising and the banning of journalists critical of the government; a refusal to form a Parliamentary Accounts Committee or institute other forms of control on Cabinet ministers; and a malapportionment of electoral zones and boundaries that served the interests of the National Party. For example, the size of electorates - both in area and number of voters - was so controlled by the government, despite supposedly neutral Electoral Commission membership, that the National Party was able to win 26 seats in a 1972 election and become the senior party in a coalition government with 19.9 percent of the state vote (while its junior coalition partner, the Liberal Party, won only 21 seats with 22.2 percent of the state vote). In the 1983 and 1986 state elections, the National Party won a clear majority of seats to achieve government without the need of a coalition partner with only 38.9 and 39.6 percent of the state vote, respectively (Coaldrake, 1989: 172). The perceived electoral vulnerability of the National Party gave rise to another factor in the continuance of the National Party in power. Coaldrake (1989) has called this factor "institutional dry rot" while G. Fitzgerald (1988) has described it as a "culture of silence" and "an institutional culture of corruption".

Coaldrake (1989: 55) describes "institutional dry rot" as the condition which results when the social institutions of the state, such as parliament, the public service, the police force and the judiciary, fail to ensure that governments operate fairly and with due regard for the public interest. "Institutional dry rot" was a feature of Queensland public life under the National Party. Coaldrake (1989: 55-88) has described how parliamentary processes were emasculated, the public service politicised, the police used as an arm of government policy, and the judiciary compromised by overtly political appointments. This corruption of public institutions meant that there were limited internal or external checks on the operation of the National Party in government.

The major way in which control was exercised over these public institutions - and the employees in them - was through the appointment of party members and ministerial "staffers" to senior positions in many government departments, the Cabinet scrutiny of all government appointments and promotions at and above middle management level<sup>1</sup>, and the suppression of dissent via punitive transfers and the blockage of promotions. Carden (1990: 26) describes this situation:

Criticism of government, and especially the National Party, was

generally met with a swift and bitter response. Dissent within the public service was rewarded with harsh punishment. In contrast, those favoured by the government, or the National Party, were offered rapid advancement within the service. This process helped create a public service which saw its interests as lying with the conservative government.

Coaldrake (1988: 158) explains that party membership came to be seen as an avenue to rapid promotion. However, the politicisation of public institutions also occurred through the development of a symbiotic relationship with the government in which members of the public service and the police force "came to share the 'values' of ... (their) political masters, and the 'benefits' of office" (p. 159), and to fear any end to "the longstanding cosiness of arrangements" should they be transferred or the government be defeated (p. 158).

Dissent was also controlled by the operations of the Special Branch of the police force which operated closely with government policy and directives. In November 1989, one percent of Queenslanders (30,000 people) were on the files of the Special Branch, according to Sir Max Bingham, the head of the Criminal Justice Commission (Bingham, 1989). The majority were citizens who had signed petitions or wrote "Letters to the Editor" critical of the government. The files also included union leaders, student leaders, people who had attended a demonstration and, interestingly in terms of the government's desire to control public criticism, 1,700 journalists. Bingham described the existence of these files as "a totally irresponsible abuse of power by police and the people (in government) who instructed them".<sup>2</sup>

Commissioner Fitzgerald (1988) has described the influence of the "institutional cultures" of corruption and silence that developed in Queensland under the National Party when "a government creates a bureaucracy peopled by its own supporters, or by staff who are intimidated into providing politically palliative advice (p. 130). Although Fitzgerald's comments were directed primarily at the police force, he noted that "it should be plainly understood that the influence of institutional culture is not unique to the Police Force" (p. 6). In this regard, Preston (1989: 11) alleges that the Queensland Department of Education and many teachers were party to a culture of silence for many years which led to a "corrupting of education and of a perpetuation of education's role in shaping a culture which served anti-democratic forces".

### **The National Party and education in Queensland**

The sociocultural context of teaching in Queensland was affected by the culture of silence that resulted from the strategy of career rewards and punishments in the politicisation of the public service. This has an important bearing on the teaching of any courses that involved an exploration or questioning of conservative value positions. An understanding of the difficulty this poses for teachers of environmental education is heightened by a consideration of what

Preston (1989: 11) has termed the "two ingredients" of National Party ideology - fundamentalism and "developmentalism". Fundamentalism often was expressed in religious terms, but it also involved conservative attitudes based upon a fear of social liberalism, the plurality of values, and social change movements. "Developmentalism" or "resourcism" involved a commitment to free enterprise economics and the rapid development of natural resources chiefly for overseas markets. According to Preston, the two values of "fundamentalism" and "developmentalism" helped shape "the dominant matrix of meaning in Queensland society" and "meant that Queensland hovered between being a modern society and an agrarian pre-modern society" in its dominant social values, attitudes to resources, and approach to economic development (p. 11).

These social beliefs sustained a philosophy of education which has been described as "crude, instrumentalist and moralistic, tinged ... with ... (a) politically inspired abhorrence of anything ... judged to be socialist" (Preston, 1989: 11-12). This philosophy of education, together with its sense of electoral security, led the National Party in government to take a strongly interventionist role in the curriculum decisions of the Department of Education and of teachers.

In a document entitled "A Chronology of Intervention", the Queensland Teachers' Union (1986: 20) identified 38 instances of politically-inspired directives through the Department of Education to schools over the period 1970 to 1986. The acquiescence of senior Department staff to these directives is an indication of the success with which the National Party was able to incorporate public servants into their value systems or intimidate them through the fear of career "punishments". Most of the 38 interventions in the Union list involved the banning of teaching resources which did not adopt a doctrinaire line in accord with the values and interests of the government. These resources included several curriculum packages which could be used in environmental education courses. In explaining why various resources were unacceptable, Premier Bjelke-Petersen (1978: 2) announced that his government had an "undoubted mandate" to carry out the will of the people, a mandate which:

... extends to education, and those in education who do not know this fact of life, should quickly reassess their duties as servants of the crown.

This open declaration of the ideological reasons behind government intervention in curriculum decisions was not an isolated occurrence. In 1978, Bjelke-Petersen was reported as saying, "There is someone over there (in the Department of Education) who does not know what the government wants to be taught in schools" (Anon, 1978: 1). Similarly, on July 20, 1982, *The Courier Mail* reported Bjelke-Petersen as stating:

Educators should get the message that we only allow wholesome, decent, practical materials in schools.... And we want the department, whoever is there, to get a clear understanding this is what the government intends to happen (quoted in Coaldrake, 1989: 152).

Maher (1985, 1986) has written that the resultant "climate of censorship" in Queensland education had a profound effect on teachers who, fearful of causing controversy - and maybe earning a punitive transfer - exercised an excessively high and unprofessional degree of self-censorship. Her comments on her personal experience of teaching environmental education in Queensland schools is worth quoting at length to illustrate the way in which the National Party was able to impose intellectual and values conformity on teachers and, through them, on future citizens:

The climate of censorship in schooling effects a pervasive and subtle form of control: self-censorship.... Its power lies in the stigma of being labelled a "greenie" or an "eco-nut", and the degree to which fear of this stifles enlightened debate in society. As a teacher in the Queensland system, for example, one is constantly aware of "big brother" possibilities. Without recognising what is happening, one can find oneself avoiding teaching anything which could be seen as "controversial". The dominant views about such topics as nuclear weapons, nuclear power, unionism, mining, conservation, rainforests ....are well understood by teachers and become a yardstick for assessing class coverage of such topics (Maher, 1986 pp. 21-22).

The National Party also sought to exercise control over the curriculum through the teaching methods approved for use in Queensland schools. This was done through the recommendations on teaching values-laden and controversial issues in a report of a Select Committee of Parliament set up to assuage public disquiet over the government's banning of two curriculum packages, *Man: A Course of Study (MACOS)* and the *Social Education Materials Project (SEMP)* in 1978. In its report, the Select Committee on Education (1979) "emphatically reject(ed)" the view that the selection of teaching strategies should be the responsibility of teachers (p. 93). In particular, it recommended that "innovative teaching strategies" such as simulation, role play and dilemma stories were to be used with caution and only when absolutely necessary as there were "invariably ... alternative means" to achieving the objectives sought from using them (p. 92). The problem with such techniques, it was argued, stems from the risk to "the more sensitive or emotional child" from teachers who might "exceed prudence" when using them and generate too much emotion in the classroom (p. 92). The Select Committee endorsed the use of values clarification and values analysis strategies for values education provided the context in which they were used supported the commonly-accepted values of "truth, kindness, compassion, social justice, respect, rationality, tolerance,

impartiality, consideration, and responsibility" (p. 95).<sup>3</sup> The Select Committee cautioned against the teaching of controversial issues because students might "walk away" with "dangerously superficial understanding(s)", "'quick frozen' solutions to prefabricated questions", and inadequate skills for handling them (p. 96). Finally, the Select Committee recommended a set of six principles for handling controversial issues in the classroom upon which the Department of Education could develop a set of practical guidelines for schools.

No such guidelines have been produced in the years since 1979 and it might be reasonably expected that few teachers now know what the six principles are. Nevertheless, there is value in considering the ideology underlying them as such consideration reveals much about the ethos of teaching required by the National Party government. The six principles are:

The consideration of controversial issues in schools whether by way of views expressed by teachers or visiting speakers or by the study of print material of a partisan nature should be in accord with the following basic principles:-

- (1) Schools are neutral grounds for rational discourse and objective study and should not become arenas for political or other ideologies.
- (2) Schools are places where students are preparing for informed and reasoned involvement in community life, including politics, by calm and objective study of social issues and not places for polarizing them into partisan political or other groups.
- (3) The school's educational program framed in accordance with its aims, objectives and methods must determine all activity within it and discussion of political or other controversial issues is acceptable only when in harmony with these aims, objectives and methods and clearly serves the purpose of the school's program. Such discussion is not intended to advance the interest of any political or pressure group.
- (4) The school has a privileged position, denied to many other concerned people, to influence students and it therefore has a special responsibility to maintain objectivity, to avoid distortion of discussions, to acknowledge the rights and responsibilities of parents and to preserve the rights of parents and children to dissent.
- (5) The extent to which a school involves its students in discussion of controversial matters must be appropriate to their maturity and their readiness to appreciate the significance of the issues discussed.
- (6) The school alone is responsible for the educative process within it and cannot transfer its accountability, wholly or in part, to



people from outside of it (Select Committee on Education 1979: 94).

On a superficial level, these principles appear to project a role of neutrality for schools and governments in education. However, closer analysis reveals that they are based upon false views of knowledge as objective rather than socially constructed (Berger and Luckman, 1966) and of schools as neutral sites for socialisation (Bowles and Gintis, 1976; Apple, 1979). R. Smith (1981: 100) notes that some of the principles are contradictory (e.g. Nos. 1 and 2) and that they reflect ideals unrelated to political practices in Queensland (e.g. Nos. 3, 4 and 6 are undermined by the history of government censorship of curriculum materials). Smith argues that the principles were an attempt by the National Party to "reconstruct the public discourse about schools" (p. 101) after a period of public concern over government intervention in education, and that the seemingly uncontroversial nature of the six principles is an example of hegemony in action. He writes:

The taken-for-granted nature of the discourse, exemplified by the pseudo-objectivity of the select committee (sic) report, is of course what "hegemony" is all about: there is a pre-existing structure of ideas and practices which is masked by the world of common sense. In this sense, the discussion of controversial issues by the select committee (sic) is both committed and controversial (Smith, 1981: 101).

### **The end of the National Party government in Queensland**

The thirty-two year period of National Party rule in Queensland ended in December 1989 when an Australian Labor Party Government was elected. Many reasons have been offered to explain the fall of the National Party. These include widespread public disenchantment over the high level of police and political corruption revealed at the Fitzgerald Inquiry, leadership instability in the party following the demise of Bjelke-Petersen, and demographic and social changes in Queensland. These changes involved growing urban populations and associated service industries which replaced the traditional pro-National Party rural and resource sector as the base of political power in Queensland. Alexander (1987) has written of this process in terms of the rise of a "new class" (Gouldner, 1979) of relatively well educated urbanites who rejected the pre-occupation with the past, fundamentalism and developmentalism of traditional National Party supporters. The values of the rising "new class" included: a concern for social reform as well as economic progress, respect for education and the professionalism of teachers, and a concern for a balance between economic development and environmental protection.<sup>4</sup>

At the time of writing in 1991, it is too soon to tell how the change in dominant social mores and a Labor government in power will affect the macro-

contexts of teaching in Queensland. During its first year in office, the new government sought to restructure government departments and appoint new people (non-National Party members) to senior management positions. The Department of Education made no decisions which affected classroom teaching in any immediate sense and, indeed, carried on with the key curriculum initiatives of the former government in its support for programs of school-industry links and computer studies. In relation to environmental education, the new government launched an environmental education policy prepared under, and approved by, the National Party government and the promoted technical approaches to environmental education such as water quality monitoring and computer assisted learning initiated by the former government. The Department of Education did not lift the bans placed on various curriculum materials by the National Party whilst a teacher's guide on environmental education published in draft form in February 1991 (Curriculum Development Services, 1991: 3.16) repeated the cautions about values clarification in the report of the Select Committee on Education (1979) described above.

Changes within the Department of Environment and Heritage during 1990 did not impact on schools in any perceptible way either. However, a new government attitude of concern for the environment could be detected in increased funding for the Department, the publication of a report of the state of the environment in Queensland (Department of Environment and Heritage, Queensland, 1990a) and a discussion paper on a state conservation strategy (Department of Environment and Heritage, Queensland, 1990b). However, favourable public perceptions of the new government's attitudes to the environment were undermined by a number of its decisions, e.g. to allow logging to continue on Fraser Island whilst an inquiry into this issue was being conducted, to allow the destruction of wetlands on Stradbroke Island to build a mineral sands export jetty, and to allow a new hydro-electric scheme to be constructed in an area of World Heritage-designated rainforest in north Queensland. The apparent pro-development stance of the government was illustrated by a comment by Premier Goss that the development of a new zinc mine in the state was "too exciting and worthwhile to allow anything to get in its way" (in Oliphant and Morley, 1991: 1).

In summary, the sociocultural context of teaching environmental education in Queensland comprises patterns and processes at the global, national and state scales, which exhibit a range of tensions and contradictions. For example, concern for the environment is reported as increasing in Queensland, nationally and globally, but the support that this may give to environmental education is undermined by the lack of critical insights in public attitudes and the co-option by the Dominant Social Paradigm into an ideology of environmental managerialism. Likewise, the rise of the "new class" in Queensland and the demise of the National party which have the potential to create a liberal context for teaching environmental education are countered by the effects of the integration of Queensland and Australia into the world-

economy as providers of raw materials for the industries owned by transnational corporations in the core. The resultant lack of economic independence severely decreases the control the Queensland and Australian governments have over resource development and environmental protection. The actions of the National party in environmental and educational matters over the long period of their control of government in Queensland created major barriers to the values and social change objectives of environmental education. The concern of the new Labor government with departmental restructuring and allowing "business as usual" to continue, at least during its first year in office, did little to alter the sociocultural context of teaching in Queensland. These tensions and contradictions in the sociocultural context of teaching have created a range of enabling and constraining influences for critical environmental education.

### **The education system in Queensland**

The influences in the sociocultural context of teaching are mediated by the educational and administrative procedures, rules and norms of education systems (Combleth, 1990: 6). This level of context constitutes the "pedagogic recontextualizing field" for the development of "official pedagogic discourse" (Bernstein, 1986, 1988). The many interventions of the National Party government in the operation of the Queensland Department of Education and the atmosphere of caution and self-censorship they created combined to reduce the perceived curriculum decision making space - or pedagogical independence - of many teachers (Maher, 1985, 1986).

However, the bureaucratic, as opposed to the overtly political, side of the Department of Education has been a comparatively minor influence on pedagogical decision making in the perceptions of Queensland secondary school teachers (Cohen and Harrison, 1982). A number of factors may be responsible for this, including: the decentralisation of day-to-day administration away from "central office" to regional administrators and to schools, the delegation of responsibility for curricula to individual school principals and from them to school subject co-ordinators, and the lack of authority or inservice education support for centrally-developed curriculum policies. For example, the influence of the Department's environmental education policy has been quite minor in both primary (Spork, 1990: 53-54) and secondary schools in Queensland (Donaghue, 1990: 87, 118). The policy was developed in 1976, and revised substantially twice for re-publication in 1988 and 1989 (Department of Education, Queensland, 1976, 1988; Williams, 1989). All versions of this policy statement were prepared under the National Party government and reflect strong political influence in conception of the nature and aims of environmental education presented.<sup>5</sup> However, over the period of fifteen years since 1976, none of these documents received sufficient central or regional inservice education or resourcing support to have more than a minimal impact on the teaching of environmental education in Queensland schools

(Williams 1990).

The delegation of curriculum development responsibilities to school principals and from them to subject co-ordinators gives considerable course planning and pedagogical independence to teachers, especially if they are subject co-ordinators. Thus, the education system and schools may be described in organisational theory terms as "loosely coupled" institutions in which there are zones of autonomy in which teachers are able to operate relatively freely of some administrative constraints (Weick, 1976; Foster, 1983; Sturman, 1986, 1989). Thus, Watkins (1985, 1989) uses Benson's (1977) analysis of the dialectical nature of organisations and Giddens' theory of structuration to argue that there is a dialectical relationship between the power exercised in education systems and the responses of teachers to it. He quotes from Giddens to substantiate this point:

Power relations in social systems can be regarded as relations of autonomy and dependence; but no matter how imbalanced they may be in terms of power, actors in subordinate positions are never wholly dependent, and are often very adept at converting whatever resources they possess into some degree of control over the conditions of reproduction of the system (in Watkins, 1985: 13).

A similar pattern of autonomy and constraint is evident in Queensland teachers' responses to the requirements of the Board of Senior Secondary School Studies.

### **The requirements of the Board of Senior Secondary School Studies**

The procedures for course planning, accreditation, assessment and moderation of the Board of Senior Secondary School Studies have proven to be one of the strongest influences in the administrative context of secondary school teaching in Queensland (Campbell *et al* 1975; Evans and Cotterell 1976; Cohen and Harrison 1982; Sturman 1989: 133-137). This section provides only a brief history of the evolution of the structures and operations of the Board as this is well documented elsewhere (e.g. see Lingard 1990; Pitman and Dudley 1990). The Board's policies on course accreditation and assessment are described in some detail in order to provide an understanding of the administrative requirements of schools and teachers in these areas and their influence on teachers' pedagogical decision making.

The fore-runner to the Board of Senior Secondary School Studies was the Board of Secondary School Studies which was established in 1970 to establish a system of school based continuous assessment to replace external examinations for Year 10 and Year 12 students. Operating with quasi-autonomous status, its role was to develop syllabuses in all subjects for the five years of secondary schooling in Queensland and to oversee the

development of school based work programs from its syllabuses and the associated moderation of school based assessment. Student assessment in schools was norm-referenced and moderated by regional panels of teachers. The Australian Scholastic Aptitude Test (ASAT), developed annually by the Australian Council for Educational Research, was used to moderate school results and rank students across the state for tertiary entrance purposes. In this way, the operations of the Board served the selection and managerial functions of assessment (Bates 1984; Lingard 1990). The Education Act of 1988 gave responsibilities for Years 8-10 courses to education systems and redefined the scope of the Board's operations (and name) to senior secondary (Years 11-12) schooling.

The major changes in Board requirements of schools came with the implementation of the recommendations of the *Review of School-based Assessment in Queensland Secondary School* (E. Scott 1978). The review which was established in response to growing public criticisms of the Board's operations endorsed school based assessment but recommended a number of changes in syllabus design, a more important role for work programs in schools, and a close relationship between objectives and assessment. These recommendations were introduced into schools in stages from 1980 to 1986 under the common name of "ROSBA", the acronym from the name of the Review. The headings of "the goal" and "the mechanisms", can be used to describe the functioning of the ROSBA system (Butler and Bartlett 1989) and the enabling and constraining influences it has on teaching in Queensland secondary schools.

The goal of the ROSBA system was to resolve the problem caused by the separation of assessment from teaching and to thus make school based assessment serve educational rather than (or as well as) managerial ends (Bates 1984). The chief mechanism for this was the replacement of norm referenced assessment with a system of competency or criterion based assessment so that the focus of assessment could be directed away from comparing and ranking students' results to describing their individual levels of achievement against pre-determined and known objectives and standards.

The Board of Senior Secondary School Studies has established an accreditation and moderation process to ensure the comparability of standards across the state. This process involves a number of steps. First, schools are required to prepare a work program in each subject for which it wishes to award students a result endorsed by the Board. Work programs are the central feature of the ROSBA system. They are school based translations of Board syllabuses into working plans for teaching and assessment in a subject. Board syllabuses are designed to provide a "broad framework" for course construction from which schools can develop a work program to satisfy local community conditions and resources (Dudley, 1986). Thus, they are non-prescriptive of pedagogical approach or content detail. However, to be accredited, a work program must satisfy a mandated structure which includes:

(1) a rationale, (2) global objectives or aims, (3) specific objectives of four types - content, process, skill and affective objectives, (4) learning experiences, (5) resources, (6) assessment plans and exemplars, and (7) criteria and standards for the award of final or "exit" levels of achievements. As Sections (1), (2), (3) and (7) are largely specified in Board syllabuses, work programs operate as a control on curriculum implementation by ensuring a direct link between objectives and assessment. This is despite the freedom intended for schools in determining content details and pedagogical approach.

Second, work programs in each subject are reviewed for accreditation by appropriate Regional Panels and a State Review Panel established by the Board to oversight teaching and assessment in each subject. Regional Panels operate a peer-teacher review process to ensure that work programs meet the minimum requirements of syllabuses and that the breadth and depth of attention to objectives, the difficulty level and focus of assessment instruments, and the assessment criteria and standards to be used are comparable across schools. Once accredited, a work program is a legal document which binds the school and its teachers to follow its prescriptions for a number of years although minor changes can be made upon application to a Regional Panel.

Schools are required to submit examples of student assessment scripts to Regional Panels for moderation at the end of Year 11 and Year 12. They may appeal the decisions of a Regional Panel to the relevant State Review Panel which has the task of moderating standards of student work between regional clusters of schools. When its assessment standards are approved, schools may submit students' results to the Board for recording on the Board certificates of achievement which students receive at the end of Year 12. These results contribute to a Tertiary Entrance score for those students who wish to undertake further studies.<sup>6</sup>

This system of course accreditation and moderation of school based assessment has a number of features which support progressive educational practices. For example, there is considerable freedom within the "broad framework" of syllabuses for schools and teachers to determine most aspects of the curriculum process, including: the depth and breadth of attention to give to particular objectives, the selection and sequencing of content and case studies, the resources to be used, the learning experiences to be developed, and the format and timing of assessment. The criterion referenced system operated by the Board is not based upon a strict interpretation of the behavioural objectives model of curriculum development and assessment. Rather, the criteria for assessment in Board syllabuses are expressed in general terms and apply across assessment instruments in order to help teachers produce a profile of student achievements on broad criteria not on individual assessment tasks. This system goes a long way towards removing the competitive element from student assessment and can assist teachers to identify and respond to the learning needs and strengths of students. If the contention by Ashenden, Blackburn, Hannan and White (1984:20) that assessment is the key to under-

standing how the school curriculum works is correct, then the ROSBA system supports a far greater range of progressive course plans and pedagogical practices than would be available in a system based upon centrally determined courses and resources and external examinations. Thus, the ROSBA system for course accreditation and assessment that operates in Queensland provides a context which can facilitate the implementation of a critical perspective in environmental education.

However, Lingard (1990) argues that there is a need to locate the ROSBA system within the socio-political context of Queensland under the Bjelke-Petersen National Party state government and to understand why an innovative and educationally progressive assessment system was implemented by a conservative government. There are a number of reasons for this paradox. The first is a pragmatic one and concerns the high cost of external examinations compared with the relatively low costs of school based assessment and the minimal support given to the Board and moderation panels to carry out their functions and to schools and teachers for the inservice education and time release necessary to implement the system effectively. Lingard (1990) offers an explanation that focuses on the "scientisation" of education through the control and accountability function of planning by objectives and criterion referenced assessment (pp. 180-182). He draws upon Pusey (1981) to argue that the resultant scientisation of education gives government the required "steering capacity" or "control of a more generalised kind" (Pusey, 1981: 9) over education which allows it not only to control education but also to distance itself from any public approbation. Thus, Lingard (1990: 181) argues that:

This form of control is ideological, rather than hierarchical and bureaucratic.... The criterion-referenced assessment central to ROSBA is an example of the scientisation of schooling. Certainly, it constructs its own technical language ... which draws upon psychometric assumptions to classify objectives while in a sense denying questions of culture and value in the process.... What we have is a technical construction of education which seeks to make manageable the ever expanding and contradictory function of schooling, thus achieving for the government 'steering capacity'.

With Dorman (1984) and Kirk and Smith (1986), Lingard is also critical of the technical rationality that is associated in education with the "ideology of objectivism" in the ROSBA system. Dorman (1984) uses Apple's (1981) argument about the effects of "curricular form and the logic of technical control" to argue that the objectives and criteria upon which ROSBA work programs are based produce a restrictive curriculum form which acts as a means of exercising increased control over teachers. Kirk and Smith (1986) argue that this could have the politically conservative result of diminishing the potential of the ROSBA scheme to facilitate critical pedagogical approaches:

... objectivism enables agents representing vested interests to exert a high degree of control over the educational process which is the antithesis of 'school-based' assessment. It could be we are witnessing a subtle and effective 'teacher-proofing' of the curriculum by the objectives-model's questioning a professional judgment both in establishing educational goals and in evaluating their achievement. Clearly, the possibility of moving toward a critical and reflective pedagogy in public education ... is severely delimited within a ROSBA-ised curriculum.

One example of this which undermines the socially-critical aspects of environmental education is the requirement under ROSBA that affective objectives not be assessed. ROSBA requires affective objectives in the form of desired attitudes and values to be specified in Board syllabuses and school work programs but excludes them from assessment so that the assessment of student learning is capable of objective measurement (E. Scott, 1978: 11). This situation provides a barrier to education *for* the environment through Board syllabuses in at least three ways. First, the exclusion of affective objectives from assessment programs devalues affective learning and minimises its importance for teachers and students by not granting it "Board endorsement". Second, it devalues attitudinal development by restricting assessment to observable "performances" which can be measured objectively. This has the effect of giving undue attention to "the *look* of performances" which "fails, in a profound way, to capture the meaning" of what students have learned and expressed in assessment tasks. It also is based upon the assumption that assessment can be objective. The fallacy of this position is noted by Kirk and Smith (1986: 35):

... underlying any 'test instrument' will be a process of judgment, and an intrusion of values, with regard to conception, construction, employment and in any interpretation of the results gained from its use. In addition, the assessor's desire to be impartial is in itself a value position open to challenge and discussion.

The third barrier to the critical objectives of environmental education in the demand for objectivity in the ROSBA system of assessment is an ideological one. The technical rationality which underlies objectivity in assessment also supports a view of knowledge as "fact" and devoid of any historical or social context. Giroux (1981: 51) explains that this uncritical attitude supports "a potent form of ideology that smothers the tug of conscience and blinds its adherents to the ideological nature of their own frame of reference". This imposes an ideological constraint upon the achievement of a critical approach to environmental education through Board syllabuses and assessment processes. Thus, the conservative ideology and technical rationality behind the change from norm referenced to criteria based assessment in Queensland secondary



schools are a constraint upon the progressive pedagogical practices possible under the ROSBA system of course development and assessment.

The next section provides an explanation of the specific context of teaching towards these objectives provided by the requirements of the *People and the Environment* geography semester unit in the *Senior Syllabus in Geography* of the Board of Senior Secondary School Studies.

### **The Year 11-12 Senior Syllabus in Geography**

Despite national and international calls for environmental education to be seen as an interdisciplinary approach to education (UNESCO-UNEP, 1976, 1978; Greenall, 1980; Hart, 1982) the discipline of geography is one of the few curriculum areas through which the objectives of critical environmental education can be achieved (Greenall, 1987: 20). This is because a focus on people-environment relationships is central to geography as a discipline (Stoddard, 1987; Simmons, 1990) and because contemporary approaches to geographical education emphasise a socially-critical orientation in education (Huckle, 1983, 1985; Fien and Gerber, 1988). These aspects of geography and geographical education provide the conceptual framework and the rationale of the *People and the Environment* syllabus in Queensland.

*People and the Environment* is one of eight semester units that comprise the *Senior Syllabus for Geography* in Queensland (Board of Secondary School Studies, 1987). The eight units are divided into three groups: Physical Geography Units (*Studies in Physical Geography*, *The Living Environment* and *Geomorphology*), Human Geography Units (*Geographical Studies of Development, Settlement Patterns and Processes* and *Economic Geography*) and Integrating Units (*Australian Geographical Inquiries* and *People and the Environment*). Schools are required to select at least one semester unit from each group when planning the material to be covered in the four semesters of study in Years 11 and 12 geography. However, the semester units are discrete in terms of their content scope and objectives and may be studied in any combination and sequence with schools having the responsibility to determine the depth and breadth of attention to the various objectives in each semester unit in accordance with the needs of their students.

All the semester units are derived from a common rationale for geographical education and a common set of aims and general objectives, and are assessed according to student achievement on common criteria. The syllabus rationale reflects the "ecosystem" or "people-environment" paradigm advocated for curriculum development in geography (Graves, 1975: 212-215; Naish, Rawling and Hart, 1987; Australian Geography Teachers' Association 1988) and stresses that work programs developed from the syllabus should provide students with opportunities to obtain knowledge *about* the environment and the inquiry skills that are "essential to knowing about people and places, becoming informed and active citizens, developing a love of learning, and producing a commitment to life-long learning" (Board of Secondary School

Studies, 1987: 1). The rationale also stresses that work programs should be conceived as "education for the society and environments in which students live" so that they can develop the understandings, values and skills "which will enable students to participate in and seek to improve their environment" and to adopt "a global perspective in making decisions about, and acting in, their local society and environment (p.1). This dualism between society and environment aside, the rationale for the syllabus establishes a socially-critical direction for the teaching of Year 11-12 geography in Queensland. This is reflected in the aims for students in the syllabus, two of which include: "(d) to develop empathy for other cultures and lifestyles" so that "the needs, aspirations, joys, fears, achievements and deprivations of other peoples will be better understood", and "(e) to become involved members of the community in which they live" (p. 5).

The *Senior Syllabus in Geography* follows the Board directive that the general objectives of a syllabus be stated as knowledge, cognitive process, skill and affective objectives. These objectives underlie the organisation of teaching units around the key questions of geography and the learning experiences which are recommended in the syllabus. Thus, Figure 1 (p. 4) and Figure 2 (p. 14) in the syllabus provide a list of key questions based upon the syntactical and substantive structure of the discipline:

- |                    |  |
|--------------------|--|
| 1. What and Where? | What are the phenomena, patterns or issues being studied and where are they located? |
| 2. How and Why?    | How has this situation or pattern developed and why has it done so in this location? |
| 3. What Impact?    | What are the effects on people and environments?                                     |
| 4. How Ought?      | What alternative ways are there for organising space and managing the environment?   |

The syllabus links these key questions to the concepts of geography (p.6), content objectives (pp. 7-8), process objectives (pp. 6-7, 14) and suggested learning experiences (p. 11-14). The syllabus recommends five criteria for assessing students' levels of achievement: (1) knowledge, definition and description, (2) gathering and recording data, (3) comprehension, analysis and application, (4) synthesis, evaluation and decision making, and (5) reporting skills (pp. 14-18) with criteria (3) and (4) considered essential if students are to be awarded "high" and "very high" levels of achievement, respectively. Together with the provisions for school based curriculum development and assessment in Queensland, these features of the Year 11-12 geography syllabus provide a structure which is supportive of teachers who wish to adopt a socially-critical orientation.

### **The *People and the Environment* semester unit**

An analysis of one semester unit in this course outlines the potential for teachers to adopt a critical environmental education perspective in their teaching. According to Simson (1974) who chaired the Board's Geography Syllabus Sub-committee when the syllabus for *People and the Environment* was first planned in the early 1970s, *People and the Environment* was written as an explicit program of environmental education. He reports that it was designed to engage students in the active investigation of the values dilemmas and conflicts that arise, in local, national and international areal units, as people use and transform the environment for their various purposes. The syllabus for *People and the Environment* contains three sections. The first involves an historical overview of the increased human impact on the natural environment (1-3 weeks recommended time allocation). The second and major section of the semester unit involves a series of thematic case studies which illustrates varying levels of human impacts on the environment and the conflicts and issues which result from them (8-10 weeks). The final section of the syllabus involves the study of various scenarios for future relationships between people and the environment and the human values and behaviours underlying them (2-4 weeks). This sequence follows the critical perspective in inquiry which advocates an investigation of the past in order to understand and critique the present and make plans for the future. The socially-critical emphasis in *People and the Environment* has been maintained, and the political nature of environmental conflicts made more explicit, in the revisions of the semester unit since the semester unit was first planned (Board of Secondary School Studies, 1973, 1982, 1987).

The potential for teachers to adopt a socially-critical orientation in the teaching of this semester unit is evident in its objectives, the content organisation and key ideas for each topic, and the suggested learning experiences in the syllabus. Figure 1 illustrates how examples of these aspects of the syllabus may be organised around some of the defining characteristics of critical environmental education - the development of a critical environmental consciousness, critical thinking and problem solving skills, an environmental ethic and political literacy (Fien, 1992) - to exemplify the socially-critical nature of the view of environmental education implicit in *People and the Environment*. Thus, the year 11-12 geography syllabus in Queensland and, in particular, the *People and the Environment* semester unit provide a structure which allow teachers to take advantage the opportunities for critical teaching afforded by the procedures for school based curriculum development and assessment of the Queensland Board of Senior Secondary School School Studies.

### **Conclusion**

This paper has outlined a range of concepts for analysing and critiquing the sociocultural and education system features which comprise the macro-context

of teaching environmental education. As such, it provides a model for others to use in order to identify the opportunities and constraints on their pedagogical practice afforded by the macro-contexts in which they live and work.

The global aspects of the sociocultural context are likely to remain relatively constant across all countries although different nations will experience the processes and impacts of the world economy in different ways depending upon their location as core, periphery or semi-periphery countries. While economic and political processes at the global and national scale are causing increased resource depletion and environmental degradation in many parts of the world, many people are awakening to the severity of these problems and are searching for ways of solving them both at the government level and in their own lives. This is a positive aspect of the macro-context of teaching environmental education that should not be under-estimated. However, a barrier to critical environmental education is the fact that few people seem to be aware of the scale and type of changes that are needed to address the root causes of environmental problems when most governments still gave priority to economic growth rather than environmental and social needs.

Great variety in opportunities and constraints for environmental education are found at the state political and education system levels of context. The Queensland case study in this paper provided a range of questions and issues which may resonate with the experiences of environmental educators elsewhere and provide suggestions for critiquing the opportunities and constraints in these levels of context in their own locations.

## Notes

- 1 This meant, for example, that all recommended promotions within the Department of Education for positions of Subject Master (Head of Department) and above had to be approved by Cabinet.
- 2 The Criminal Justice Commission was established from one of the recommendations of "the Fitzgerald Inquiry" which was set up to investigate police and other official corruption. The Criminal Justice Commission has the task of continuing the Inquiry's work on a permanent basis. Interestingly, the Fitzgerald Inquiry was established by the National Party in 1987 while Bjelke-Petersen was overseas. Bjelke-Petersen tried unsuccessfully to curtail the scope and powers of the Inquiry on his return due to public pressure. He lost the Premiership in a party room vote in early 1988 and was replaced by the more liberal Michael Ahern. Ahern attempted to build electoral support for the National Party which had plummeted (due to Fitzgerald Inquiry allegations of criminal corruption against senior police officers and several National Party Ministers) by promising to implement Fitzgerald's recommendation "lock, stock and barrel". The Criminal Justice Commission was established out of this promise. One of the Commission's early acts was to order the destruction of any Special Branch files that were not essential to state security. (Interestingly, this order was given in the month prior to the 1989 election when opinion polls indicated that the National Party was likely to be defeated for the first time in 32 years). Estimates of the number of files destroyed range from 8,500 (Rowett 1989: 1) to 22,000 (Bingham 1989) to 29,000 (Hyfield 1989). For an account of the impact of the Fitzgerald

- Inquiry in Queensland, see Presser, Wear and Nethercote 1990.
- 3 The Select Committee seems to have failed to notice the paradox between this set of values and (a) its own rejection of anti-sexist education (Select Committee on Education 1979: 95), (b) the anti-democratic way it controlled public institutions such as the public service and schools, and (c) the criminal behaviour of some National Party ministers, six of whom were since charged with official corruption whilst in office. For further critique of the Select Committee and its report, see A. Scott and R. Scott (1980), R. Smith (1981), and R. Fitzgerald (1984b).
  - 4 For example, a telephone survey of the environmental attitudes of a sample of 1500 Queensland people in early 1990 indicated a generally high level of concern over a number of specific development versus conservation issues (Daniels and Brown 1990).
  - 5 Fien (1990) provides a critique of the 1989 Queensland environmental education policy statement. For example, he highlights the emphasis on "sustainable yield" not "sustainable development" and the lack of any conception of social action in the statement.
  - 6 Tertiary entrance in Queensland is determined by students' school based criterion referenced achievements in each subject as moderated by their performance on the norm referenced Australian Scholastic Aptitude Test. Lingard (1990: 178) described this pattern as a "hybrid norm/criterion referenced" system which "meets some educational purposes important to teachers while still meeting the macro selection and accountability purposes, thus suturing together ... Bates' 'educational' and 'managerial' aspects of assessment." This method of determining tertiary entrance is in the process of being replaced by a more complex, but supposedly fair, system based upon core skills and criteria across syllabuses, from 1992.

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**Figure 1:** Examples of objectives, key ideas and suggested learning experiences in the *People and the Environment* semester unit that reflect four critical pedagogical principles of education for the environment (Board of Secondary School Studies, 1987).

	<i>Critical Environmental Consciousness/Critical Thinking and Problem Solving Skills</i>	<i>Environmental Ethics</i>	<i>Political Literacy</i>
<i>Objectives</i>	<p>Recognise that people are an integral part of a complex system.</p> <p>Identify human impacts on the biophysical environment.</p> <p>Describe environmental changes wrought by people.</p> <p>Estimate the environmental consequences of human actions and propose plans for solutions to environmental problems.</p> <p>Identify the initiators, principal managers, and some of those affected by, or at risk because of, induced change to the environment.</p> <p>Differentiate between fact and opinion as the bases of arguments about the use of the environment.</p>	<p>Display an empathy for different life styles and attitudes.</p> <p>Appreciate sensitively environmental relationships, land use conflicts and the conservation ethic.</p>	<p>Identify the decision making processes required for satisfactory resolution of environmental conflict.</p> <p>Outline the possible strategies, including changing life styles, open to humans as solutions to resolve future problems.</p> <p>Apply principles of habitat conservation and preservation to a wide variety of situations (on a local to international scale).</p>
<i>Content: Key ideas</i>	<p>The environment is the sum total of the natural and cultural features, patterns and processes that constitute the habitat of living things.</p> <p>Human impact on the environment has increased as specific technologies have been developed to utilise the earth's resources.</p>	<p>Decisions about the use of a natural environment depend on the goals, cultural values, and technologies of particular social systems.</p>	<p>Regional and national interests sometimes prove to be constraints on the resolution of environmental problems, conflicts and issues.</p>

	<p>The degree and type of impact on the environment reflect the cultural values of the people who control decision-making over particular environments. Human induced environmental change may have harmful effects on the health of the human population and may radically alter the life styles of some people.</p> <p>The future geography of world resources depends on present and future resource availability and consumption levels, projections on resource availability, and changing technology.</p> <p>Questions, issues, conflicts and/or problems may arise when conflicting value systems make demands on the same environment.</p> <p>The perceived value of an environment and of the opportunities presented can change considerably over time due to changes in cultural values or the dominant groups within a society.</p>	<p>All citizens should develop a personal environmental ethic through which they can interpret human impacts on the environment and decide appropriate responses.</p> <p>Future patterns of human impact on the environment will result from the tension between the values underlying alternative social systems and the environmental beliefs included in them.</p>	<p>Environmental management problems are often difficult to resolve, especially when there are conflicting cultural values within a society and there may be changes in these values over time.</p> <p>Governments at all levels play a major role in mediating between groups with conflicting value positions and as agents of environmental impact in their own right.</p>
<p><i>Suggested Learning Experiences</i></p>	<p>Maps and photograph analysis to identify the physical and social systems in an environment.</p> <p>Construction of a time line of people - environmental relations on a global scale.</p> <p>Photographic analysis of changes in the human impact</p>	<p>Case study of changing visions and uses of the environment in Australia.</p> <p>Survey student and/or public attitudes towards</p>	<p>Library research (especially from current newspapers and magazines) to investigate the background to environmental issues.</p>

	<p>on one region.          Comparison of similar natural systems where a variety of human management approaches have produced contrasting environments.          Field studies to explore the interactions in a physical system and the ways they have been modified by human action.          Map and statistical analysis to explore present and projected patterns of population, resource availability and consumption, and pollution.          Computer modelling/simulation of future patterns based upon alternative assumptions about population, resource consumption, technology and pollution levels.          Analysis of the cultural values underlying alternative futures, assumptions, and scenarios.</p>	<p>particular environmental conflicts/issues.          Identification of the social, economic and political goals and values of different social systems from text, map and photographic evidence.          Analysis of values underlying alternative interpretations of, and proposed solutions to, environmental conflicts/issues.          Personal decision making about environmental ethics and action.</p>	<p>Decision making and problem solving exercises in which students provide interpretations of, and solutions to, environmental conflicts/issues.          Simulated committees of enquiries (e.g. a mock Mining Warden's Court hearing) to replicate the processes involved in resolving environmental conflicts/issues.          Student involvement in local environmental protection/ improvement projects.</p>
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