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The location of transport infrastructure and the policy-making process: post terminals and modal networks for NSW export coal in the post 1970s

Sophia A.M. Everett

University of Wollongong

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THE LOCATION OF TRANSPORT INFRASTRUCTURE
AND THE POLICY-MAKING PROCESS: PORT
TERMINALS AND MODAL NETWORKS FOR
NSW EXPORT COAL IN THE POST 1970s

A Thesis submitted in fulfilment of
the requirements for the
award of the degree of

Doctor of Philosophy

from

The University of Wollongong

by

SOPHIA A.M. EVERETT BA, MA(Hons.)
(University of Wollongong)

Department of Geography
1988
This study examines the mechanism of policy-making as it relates to the provision and location of coal transport infrastructure in NSW.

The study suggests that traditional geographic theories and positivist decision-making models do not adequately explain location decisions and that, intuitively at least, it is apparent that the principles of economic rationality are inappropriate explanatory mechanisms. Rather, it is argued that comprehensive analysis of infrastructure location and provision requires an investigation into the policy-making process itself.

This thesis focusses, therefore, on the relationships between the policy-making process and the location of transport infrastructure. Its perspective is locational - the pattern and structure of transport networks for NSW export coal from the early 1970s; but its analytical focus is the mechanism of transport policy-making and decisional analysis which reveal the fundamental nature of the policy process - the elements involved, the power linkages, the 'play of power'.

ABSTRACT
The study adopts a pluralistic perspective and argues that while policy decisions are made by a relatively small number of decision-makers, the ultimate choice of action, in this instance infrastructure provision and location and its eventual implementation, is the outcome of an intricate and complex 'play of power'.

The thesis is structured around four detailed case studies, each of which exemplifies not only particular aspects of the policy-making process but also the relationships between the process and the actual structure of the transport system.
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I am deeply obligated to members of my family who have lived through the traumas, frustrations, the trials and tribulations associated with the completion of a Ph.D programme, in particular a special thank you to Richard.

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LIST OF ABBREVIATIONS

Australian Federated Union of Locomotive Enginemen: AFULE
Australian Iron & Steel Pty. Ltd.: AIS
Australian Labor Party: ALP
Australian Metal Workers' Union: AMWU
Australian Railways Union: ARU
Australian Transport Officers’ Association: ATOA
Broken Hill Pty. Ltd.: BHP
Buchanan Borehole Collieries: BBC
Clutha Development Pty. Ltd.: Clutha
Clutha Development Pty. Ltd. Agreement Act: Clutha Act
Coal Resources Development Committee: CRDC
Combined Coal Chain Unions Consultative Committee: CCCUCC
Democratic Labour Party: DLP
Department of Environment and Planning: DEP
Department of Main Roads: DMR
Department of Public Works: PWD
Electricity Commission of NSW: Elcom
Environmental Impact Statement: EIS
Federated Engine Drivers and Firemen Association: FEDFA
Gollin Port Services Pty. Ltd.: Gollin
Hunter Valley Coal Chain Council: HVCCC
Illawarra Region Port and Railway Community Advisory Committee: IRPRCAC
Joint Coal Board: JCB
Kembla Coal & Coke Pty. Ltd.: KCC
Kooragang Coal Ltd. KCL
Maritime Services Board of NSW MSB
Newcastle Coal Shippers NCS
Newcastle Trades Hall Council NTHC
Port Waratah Coal Services Ltd. PWCS
Public Transport Commission PTC
South Coast Labour Council SCLC
South Coast Organisation Opposing Pollution SCOOP
State Pollution Control Commission SPCC
State Rail Authority SRA
Transport Workers' Union TWU
Utah Development Corporation Utah
Waterside Workers' Federation WWF
Waterside Workers' Federation (Cranes Branch) WWF (Cranes Branch)
PART I: EXPLAINING INFRASTRUCTURE LOCATION
In the 1970's the escalation of oil prices, especially in 1973, 1974 and later in 1979, led to a rapid growth in the global demand for thermal coal. To a considerable degree, this already added to a relatively booming demand for coking coal as the global demand for iron and steel continued to grow through the mid-1970's. In response to these demands Australian coal exports increased rapidly through the period, large deposits in Queensland were opened up, production in traditional NSW fields intensified and a spate of new mining developments appeared.

This rapid market expansion resulted, not surprisingly given the considerable age of much of the existing infrastructure, in extreme pressure on the transport networks. Export demands exceeded actual port capacities, resulting in long delays and extensive ship queuing, in widespread operating inefficiencies in the ports and the imposition of an export quota system. Rail track and wagon capacities were inadequate; and the alternative, trucking large volumes of coal by road, was
unacceptable to the increasingly vocal and powerful environmental lobby.

In due course, and in what appeared to be somewhat ad hoc responses, this pressure on the existing network led to a number of major infrastructural changes, or proposed changes. New coal loading facilities were mooted for Newcastle, Botany Bay and Port Kembla; washeries were constructed at numerous locations; new rail links were planned and/or built in the Hunter Valley and the Illawarra; and road links were added and networks expanded and upgraded.

It is with these infrastructural responses that this thesis is concerned – or, more particularly, with explanation of the locational aspects of infrastructure provision. For rather than new locations of infrastructure conforming to the explanations offered by the traditional, economically rational spatial and economic models it became apparent, on closer investigation, that infrastructure location issues were tied to the more complex questions of policy formulation and implementation – indeed, to the whole question of the dynamics of the policy-making process.
Certainly, the provision of transport infrastructure for export coal in NSW has been characterised by its high level of politicisation, reflecting 'political' rather than economic or spatial rationality. It has been conflict-ridden as diverse elements in the power structure have manoeuvred to maintain the status quo or to promote self-interest. Intuitively, it seems likely that individual infrastructure projects would be cost excessive simply because of the delays in, and the intricacies of, the decision-making mechanism; and that conflict has given rise to economically and spatially sub-optimal locations.

This thesis focusses, therefore, on the relationships between the policy-making process and the location of transport infrastructure and transport networks; and, more particularly, on the provision of export coal transport infrastructure in NSW.

As a background to more detailed analysis this chapter falls into four sections. The first reviews briefly the variety of approaches and conceptual frameworks adopted in the geographic literature in order to describe and explain aspects of infrastructure location. It suggests that, to date,
geographers have for the most part not explored the implications of the policy-making process for infrastructure location. The second section narrows attention to a more detailed discussion of pluralism and suggests that it offers an appropriate conceptual framework for the discussion of the relationship between the policy process and infrastructure location. The third section particularises the discussion and proposes a framework for the analysis of export coal transport infrastructure location in NSW. In the final section the organisation and structure of the thesis are outlined.

I: INFRASTRUCTURE LOCATION IN THE GEOGRAPHIC LITERATURE

If there was one single, pervasive paradigm for transport studies in the 1960's and much of the 1970's it was that which embraced location theory, was closely related to systems theory and emerged in the literature in the form of locational analysis. Transport networks were conceptualised topologically as nodes and links in a graph, flows in the network were summarised in matrix format and matrix algebraic notations and shape, form and structure of the network became the focus of examination. Within
a Logical Positivist philosophic frame measurement and modelling and the search for regularities, laws and theories determined not only the methodologies and techniques but also an often-mechanistic choice and treatment of research topic.

Transport infrastructure, in this context, was not seen as a simple physical element — a rail track, a freeway or a port occupying physical space; rather, physical location was taken as given. Infrastructure assumed importance in terms of its topological structure, its connectivity and accessibility — which were, after all, fundamental spatial concepts.

Garrison's (1) early (1960) paper, in which he explored notions of graph theory with respect to the US Interstate highway system and his later paper in 1965, with Marble (2), set the methodological framework for numerous studies. Kansky (3) in 1963, for example, explored the topology of transport networks and regional characteristics, as did Gould (4) in Ghana (1963). Taaffe, Morrill and Gould (5) expounded a model of transport network development in Ghana and Nigeria; and Gauthier (6) explored the relationships between transport networks and development in Brazil. In 1969 Kissling (7) defined
nodal accessibility and the importance of highway linkages for urban places in Nova Scotia.

Less attention has been paid, at least in the geographic literature, to the individual infrastructure facility - a seaport or an airport, for example - as an operating system within a system and it was not until 1976 that Robinson (8) outlined an appropriate methodological framework for ports.

Despite the overwhelming dominance of the location theory/systems paradigm over two decades or more, with its abstraction of infrastructure location in topological terms, there persisted throughout the geographic literature a concern that the location of transport networks could not be dismissed quite so readily. Meinig (9), in his 1962 study of the evolution of the railnets in the Columbia Basin (in the US Pacific Northwest) and in South Australia, placed his study within the framework of historical geography, and in the tradition of Carl Sauer. But his emphasis was, to a considerable extent, on the nature of the decision-making process involved - on reconstructing "... as carefully as possible the geographical context of each decision, that constellation of situations, objectives, and
possibilities with which the decision-makers were faced" (10).

At about the same time Wolfe (11), in Canada was exploring, within the framework of political rather than historical geography, apparent distortions and irrationalities in the location of segments of the Canadian rail network. These, he argued, reflected not economic but political variables.

In the UK, and to some extent more generally in Europe, there had emerged a somewhat traditional emphasis on transport history, particularly of rail networks. By the early 1960's numerous transport studies had adopted a morphological perspective, with its interest in shape and form and in the explanation of the 'why' of transport network location. Bird (12), in a number of studies of seaports - the port of London (1957), seaports of the UK (1963) (13) and of Australia (1968) (14) and a more general global view (1971) (15) - focussed on shape, form and the evolution of seaports.

By 1965, however, Appleton (16) had found it necessary to defend a morphological approach to transport studies and, indeed, to argue that "... in the geography of transport (morphological
studies) have scarcely begun" (17). His concern was that transport systems should be seen within the context of their environment - that "in examining any one transport system . . . to obtain a balanced view one must consider all facets of the environment which are relevant" (18).

In some ways this position was not far removed from Cooley's 1894 framework in which he suggested that "The character of transportation as a whole and in detail, at any particular time, and throughout its history, is altogether determined by its interrelations with physical and social forces and conditions. To understand transportation means simply to analyse these interrelations" (19). Nor was its general emphasis very different from Eliot Hurst's (20) plea in 1973, as we shall note below.

Certainly Appleton, in his defence of a morphological approach to transport networks and to questions of network location, saw the need to assess carefully the political context of locational decision-making (21).

By 1970 Wolpert (22), working within the general framework of location theory (and, thus, far removed from Appleton's conceptual framework) and focussing
on problems of explaining "... the distribution of such artifacts as expressways, urban renewal, and public housing projects" (23) found it necessary to abandon the strict assumptions of "economic rationality in decision behaviour" (24) and to explore the "complexities of these locational decisions" (25).

In the context of this present discussion Wolpert's paper is of particular interest for not only does it underline a dissatisfaction with the economically rational model framework of location theory but it also recognises the necessity, in explaining infrastructure location, of understanding the 'decision environments' (26).

For the locations of 'controversial facilities', or artifacts, Wolpert notes, "... are merely the end products of policy compromise ... are rarely the 'most efficient solutions', and frequently (are) not even satisfactory neither for those responsible for their creation nor for their users (27) ... are products of decisions, and their forms and structures reflect only the solution to a problem and a decision environment which may remain hidden" (28). It is, of course, interesting that Wolpert sees these artifacts as "dysfunctional or
maladaptive responses to the needs or demands to which they were meant to serve" (29) rather than as the norm. Nonetheless, his paper reflects a continuing concern in the literature for more adequate explanation of infrastructure location.

By the early 1970's this concern had emerged on a somewhat wider front. In 1971 Rimmer (30), in an examination of government influence on transport decision-making in Thailand, attempted to specify the roles of the decision-makers and the mechanics of decision-making. Though a more-or-less formal description - and probably underplaying the power roles of the World Bank and of bilateral aid governments, as Robinson has suggested (31) - the paper nonetheless was important in seeking to explain the relationship between transport decision-making and its spatial expression in terms of infrastructure.

In 1973, however, Eliot Hurst's (32) paper Transportation and the Societal Framework seriously questioned the status quo in transport geography research and criticised the lack of an 'holistic framework' and the relatively mechanistic analyses associated with the quantitative approach (33). It was, Eliot Hurst argued, "... the time to inquire
about the socio-economic reality within which transportation geography is studied and within which transportation systems operate. The socioeconomic reality of the behavioural-operational milieus are at least of equal importance with the mechanistic analyses of descriptive materials" (34).

In the context of this thesis it was Eliot Hurst's emphasis on the need to look beyond the 'bare networks and nodes' and to incorporate the "... 'subjective' dimensions of decision-making, political frameworks, and governmental legislation" that is of special importance (35).

From the late 1970's it became clear that the location of transport infrastructure, whether in an urban context or not, was not unusually - perhaps invariably - politicised; that conflict was a fundamental condition of the decision-making process; and that policy-making mechanisms were, at best, less than satisfactory. Not surprisingly, then, there emerged a rather 'new' direction in the geographic literature that pursued more vigorously conflict, politics and decision-making in respect of the location of transport networks; though the relationships between the three were not always clearly recognised.
In the United Kingdom the new approach was biased strongly towards the inadequacies of planning and discussion focussed on the nature and mechanisms of the planning process. Grant (36), in 1977, in *The Politics of Urban Transport Planning*, pointed to the inadequacies of both the traditional approach to urban transport planning (with its reliance on "the synoptic model of problem solving" (37), on modelling and almost invariably on large scale capital programmes) and the non-traditional approach in which the planners were rather more concerned with the "identification of the physical and social constraints which affect policy-making" (38).

Neither approach, Grant suggested, sufficiently understood the nature of transport policy-making; rather, he argued that "... urban transportation policy-making can be described and explained only through the detailed examination of the local groups which become involved in the policy process" (39). His study proceeded, by means of three detailed case studies, to examine the behaviour of three groups of actors - technical, community and political - in the planning process. He concluded, *inter alia*, that it was clear that "... decisions are not taken after careful and objective analysis of all
the feasible alternatives but rather are made with limited and often biased information" (40); that "transport planning and policy-making is a political process" (41); and that "more information about how decisions are made will improve the process by which the country is governed" (42).

In 1980, Blowers (43), again within a framework of local planning policy and not specifically transport policy, set out to "... illuminate the political realities of policy-making in planning" (44) and to explore the concepts of planning, politics and power (45). For Blowers the planning process, far from being rational, is "incremental, coordinative and short term" (46); and more recently had become highly politicised. Blowers, too, uses detailed case studies to demonstrate that "... planning is in reality an incremental process responding to immediate pressures from various interests conditioned by resources and the political climate" (47).

One other study deserves a special mention, not for a specific focus on transport policy-making but rather for its emphasis on decision-making processes and location. The study, by Muir and Paddison (48), Politics, Geography and Behaviour, emerged in 1981.
The two authors set out to show "how political factors and processes influence and interact with spatial behaviour" (49) and in emphasising 'process over structure' focus on "certain key aspects of process, notably decision-making and its antecedents, and the interaction of politics and the environment" (50). For Muir and Paddison a behavioural approach "accentuates the question of process" and focusses on "unravelling the sequence of events underlying some decision which has resulted in a spatially observable pattern" (51). In the context of this study the authors' focus on decision-making and decisional analysis is of special relevance and provides a most useful framework for analysis.

In the United States of America, in 1982, Cox and Johnston (52) edited Conflict, Politics and the Urban Scene, a set of papers which dealt, in one way or another, with the "related concepts of locational conflict, externality and institutional effects" (53) and which, the authors suggested, reflected "the emergence of . . . a new focus in geographical research" (54).

For them, the "interest in conflict and politics (had) to be seen against the backdrop provided by
locational analysis" (55) and they recognised two fundamental positions. The first saw conflict and externalities, the monopoly effects of space and the role of institutions and interest groups as the basis for deviations from the theoretical framework offered in locational analysis; and the second regarded locational conflicts as an inevitable outcome of the conflict between capital and labour. But despite their desire for a "well articulated theoretical structure" (56) the authors do little more than call for more information from studies of real world situations. For the most part they focus on locational conflict, *per se*, and do not examine in detail the whole, complex decision-making process.

In the late 1970's and early 1980's interest in questions of locational conflicts and in the politics of location also gave rise to a number of studies in Australia. Logan (57), for example, in attempting to explain the planning process for the development of Melbourne found it necessary to focus on the "political process of policy decision-making" and argued that "Melbourne's planning . . . represents the outcome of an elaborate power play with the actors constantly moving into the limelight and out again, regrouping and enjoying varying
degrees of success in influencing the direction of planning policy formulation" (58). His model of the process was based on the concepts of power and political conflict and emphasised differences in perceptions among the decision-makers.

Logan's paper is of particular interest because it sees conflict within the framework of normal political processes; he argues, too, that to understand the nature of urban physical and social change, in the case of Melbourne, it is important to concentrate "... on the role of the actors involved in the governmental policy-making and plan implementation, and on the interplay between the decision-makers' own perceptions, attitudes and ambitions and the attempts by individuals and groups in society to manipulate the planning process in their own favour" (59).

More recently, two other papers have focussed specifically on problems of transport infrastructure provision; both are concerned with questions of conflict; and both examine the role of the state. The viewpoints are, however, somewhat different.

In 1982, Rimmer and Black (60) examined some aspects of landuse-transport changes in Sydney consequent
upon the introduction of containerisation. 'Locational restructuring conflicts' were seen to result from the addition of new container terminals and new freeway and road links. Unfortunately, the study did not develop a decision-making framework within which to evaluate policy development and change. Moreover, it tended to see conflict and "anarchical decision-making by private firms and individuals" (61) rather more as aberrations from a rational condition and necessitating state intervention to restore some sort of equilibrium, than as the 'normal' condition.

Somewhat later, in 1986 (though the work was completed in 1982), Juvik(62) reported her work which focussed on the role of the state and the determinants of its actions in the location of a natural gas pipeline from Moomba in South Australia to Sydney. In fact, Juvik found that there was no single principle of explanation of state action but that ". . . state power must be seen as the interaction and outcome of a range of social forces acting for or against the gratification of particular interests" (63). The study is of special interest in the context of this thesis because of its attempt to demonstrate the complexity of locational decision-making and the relative
importance of "power relationships between different interest groups" (64).

This brief review of the way in which the locational aspects of transport infrastructure have been handled in the literature underlines a number of points.

First, it has been suggested that from the 1960's (and perhaps even before) there has been persistent expression of a need to understand the decision-making mechanisms and the political processes associated with transport infrastructure provision. Meinig, Wolfe, Eliot Hurst and Wolpert, for example, all argued for a clearer understanding of these relationships.

Second, that since the mid-1970's there has been some considerable uncertainty as to how to handle, conceptually and methodologically, these relationships. Thus Cox and Johnston pointed to the persistence of locational analysis as a framework for conflict analysis and to the possible emergence of a more radical framework; and Rimmer and Black use a familiar landuse-transport system frame.
Third, that not only has there emerged a need for a more cohesive, adequate framework within which to examine the relationships between transport infrastructure provision and the policy-making process but that also some studies have in fact demonstrated the possibilities of a new framework. Thus Grant, Blowers and Logan all emphasise the role of groups, of power relationships and of the complexity of the political process; and Muir and Paddison offer a clear framework for decisional analysis.

It is to this group of studies which this thesis aligns itself; its focus is on the relationship between locational decision-making and policy-making mechanisms, specifically in respect of transport infrastructure provision and the spatial patterns and structure of transport networks. But it argues that there is further need for the specification of a conceptual framework that will adequately handle these relationships.

The following two sections attempt to develop such a framework; and the body of the thesis sets out to exemplify its general principles.
II: PLURALISM: A CONCEPTUAL FRAME

Group Theory: An Appropriate Frame for the Explanation of Policy-Making

Richardson and Jordan (65) argue that policy processes can only be understood by reference to group theory. Policy and decision-making, in a democratic political system are carried out, not by a single governing body or a dominant economic elite, but by a multiplicity of participants. Moreover, power in a pluralist system, as Dahl (66) argues, is dispersed and though political leaders are the major policy-makers in the sense that they initiate or veto public policy decisions, their choice of action is influenced and, in fact, determined, by pressure group and other forces. Input into decision-making emerges from diverse sources. Trade unions, Richardson and Jordan (67) point out, were seen as prime examples of group power throughout the 1970’s. Producer groups have also been most effective participants in the policy process, though other factions including environmental and resident action groups have impinged and exerted pressure with increasing effect.
In principle, the ultimate source of power in a democracy lies with the electorate, though researchers [including Lindblom (68) and Blowers (69) for example] question the real effect of the voter on the policy process. Elections, they argue, are infrequent and, unlike the Australian system, voting in the United States and the United Kingdom is not compulsory and turnout is low. As a result, the influence of the electorate appears to be weak. Self (70) points out, however, that political parties nevertheless perform the functions of 'aggregating group interests and . . . will bid competitively for the support of groups in their efforts to win elections'.

Under a pluralist system a single group does not dominate all aspects of the policy process. Rather, pressure groups are issue specific and groups with a high degree of influence in one area will not necessarily display an interest in another. As conflicts arise, groups with a common purpose are formed. This coalition ceases, however, when the specific problem is resolved or the cause is abandoned. Other issues will attract the attention of quite different individuals and result in the formation of other factions. The dominance and influence of pressure groups thus continually change
and it is specifically the changing nature, composition and different respective causes of groups that ensure that no one faction will dominate all policy areas on a permanent basis or over a prolonged period of time.

Elite Theory: An Appropriate Alternative?

Elite theory challenges the pluralist notion that power is distributed throughout society. Rather it argues that power is held by a ruling elite. Classical elite theorists Pareto and Mosca, for example, argued that political power is concentrated in the hands of a minority group - this was, in fact, a necessary and inevitable feature of all societies. Mosca suggested that 'In all societies two classes of people appear - a class that rules and a class that is ruled. The first class, always the less numerous, performs all political functions, monopolises power and enjoys the advantages that power brings, whereas the second, the more numerous class, is directed and controlled by the first, in a manner that is now more or less legal, now more or less arbitrary and violent' (71).

Classical elite theorists argued that political elites maintained their elevated positions either
through revolutionary overthrow, by military conquest or through the domination of essential resources. Political elitism was thus closely aligned with either military power or economic dominance. In more recent times Mills (72) investigating the notion of institutions being major sources of power in the United States suggested that the American political system was dominated by a power elite occupying key positions in government, business corporations and the military. He suggested that the overlap and connection between the leaders of these institutions maintained a relatively coherent power elite. Similar studies carried out by Hunter (73) in Atlanta based on an analysis of power bases of local leaders, uncovered an elite comprising mainly business, bankers and industrialists.

Within an Australian context elite theorists, such as Connell and Irving, argue also that power is not dispersed but that a number of institutions dominate Australian society. These include deeply entrenched political parties, long established families, government institutions and elements within the private sector which dominate business and the economy. These authors suggest that location
conflicts accordingly are essentially class, not issue, based and though pressure groups abound, the real power is held by a ruling elite and that the system as a whole is structured in the interests of that elite (74).

A fundamental difference between pluralist and elite theories is that while power, according to pluralist views, is tied to issues which may be fleeting or prolonged and provoke the coalition of groups which persist until the issue is resolved or loses momentum, elite theorists hold that the distribution of power is a relatively permanent aspect of the social order and economic structure.

**Marxist Theory**

Marxist social philosophy of history purports to demonstrate the inevitability of socialism and eventually of full communism - a classless, collectivist order in which the social product is distributed according to needs and in which the state, law, money and the concept of economic value have lost their functions.
Marx and Engels composed a manifesto in the 1840s which presents all history as the story of class struggle and depicted modern history in the grip of great revolutionary forces. Technical advances in the methods of producing wealth had changed the nature and the balance of social classes. Modern industry and commerce had given power to the bourgeoisie, the industrial, commercial and financial capitalist who owned the means of production and whose ruthless exploitation of the world's resources and of the proletariat shaped history. This dominant enterprising class controlled the liberal state and used it for exploiting and repressing those who had only their labour to sell. According to Marx and Engels the proletariat was destined to grow in size, misery and self consciousness until it was able to overthrow its oppressors.

According to Marxist doctrine, democracy was a sham as parliamentary government was only a mask for the class rule of the capitalist. The workers should have no national loyalties, since they had common interests with the proletariat of other lands but none with their own employers. In time the destined proletarian revolution would be a world revolution, inevitably triumphant, inaugurating first a
proletarian state and eventually a truly classless society (75).

Neo-Marxist theorists also argue that in advanced western societies it is the economically dominant class which exercises decisive political control. Miliband, for example, in investigating the connection between economic and political power argued that the state was an instrument of capitalism. This was firstly a consequence of class structure - the similarity in social background between the bourgeoisie and members of the state elite - those who occupy senior positions in government, the civil services, the military, the judiciary and other state institutions. Secondly there was the power that the bourgeoisie was able to exercise as a pressure group through personal contacts and networks and through the associations representing business and industry. In addition, Miliband pointed to the constraints placed on the state by the objective of capital - that is the freedom of action of state officials is limited by their need to assist the process of capital accumulation which stems from their dependence on a successful economic base for their continued survival in office.
Ham and Hill (76) suggest that in a capitalist system the state is not merely an instrument of capitalism but that its main function is, in fact, to assist the process of capital accumulation. This means creating conditions in which capitalists are able to promote the production of profit.

Neo-Marxist views, embraced by Dunleavy (77), on the other hand, place emphasis on the power and relative autonomy of the state in an advanced capitalist society and stress the significance of class interests, particularly in monopoly capital, in state policy-making. Manley (78) agrees, noting that in the United States the political economy is directed unequally to business and government. Important public decisions, he points out, are left to the market - and the job of government is to induce, not to command, business to perform its function.

The inegalitarian nature and the potential perpetuation of inequity perceived to be inherent in pluralist theory has been a common criticism. Thus Domhoff (79), points out that the theory favours those groups which are well organised and have
access to powerful resources, while the interests of those sections of the community which have not formed influential lobbies and who do not possess political clout are ignored. Playford (80) observes that political pluralism does not reflect the interests of those most in need and Schattschneider (81) noted that the system itself was elite oriented with a pronounced business and upper class bias.

The object of pluralist theorists, however, is to provide an explanation of the policy process as a political activity which corresponds with 'real world' situations. The ethical and moral considerations concerning inequity and altruistic prescriptive devices, motivated primarily by the researchers' own ideological or moral biases, is not the major concern. That is not to say that these issues are not important, but that they are not part of this exercise of unravelling the workings of policy processes. Dahl (82), in fact, denies that equity is a criterion of pluralist policy-making and points out that although critics have frequently attributed to pluralist theory the assertion that groups are equal in their influence over decisions, it is doubtful that anyone described as a theorist of pluralism has ever made such an assertion.
Class structure analysis and ruling elite theories provide rather tidy conceptual arguments concerning the organisation of political and economic structures. Philosophical deductive arguments supporting elitist assertions are used based on \emph{a priori} assumptions that, one, a ruling elite dominates the political/economic system and, two, that policy is made to serve the interest of that elite. While the argument may constitute valid deductive reasoning [with all its innate shortcomings (83)] when the theoretical principles are applied to investigate infrastructure location policy decisions, it falls far short of an adequate explanation.

This thesis will demonstrate that a number of interest groups, not simply an elite, determines policy processes, and analysis of this system is amenable to a pluralist perspective.

**Corporatism**

Opposition to pressure group theory has emerged from a revival in corporatist beliefs. Corporatism, in its many guises, is essentially a tripartite mechanism comprising government, industry and labour interests. Pahl and Winkler (84) have suggested that advanced industrial countries have passed from
a form of capitalism in which state intervention was minimal to one in which the state exercised control over all major aspects of business decision-making. Historically, the movement was away from *laissez-faire* capitalism and the 'anarchy' of the market to one of state intervention and regulation of both capital and labour demands (85).

Despite the many forms and diversity of corporatist theories (Pahl and Winkler (86), Schmitter (87) and Cawson (88) for example), Martin (89) argues that given the focus of the role of the state in all theories, the integrity of the concept is impaired by the inability of its proponents to present something like a common bond on the issue of the state's role.

Loveday (90) argues that one of the weaknesses in attempting to apply a corporatist explanation to Australian conditions, relates precisely to the role of the state which most theorists see as a "well-oiled operating machine of great power". The notion of state as a monolith or as a supremely powerful single entity certainly is inconsistent with the Australian position of government structure or state. Within one government system, for example, there is a very high level of fragmentation and
departmental independence. In addition, in the federal system, the state — that is the federal state — is embodied in a number of separate states and governments which are not in hierarchical relationships of dependency to the national state.

Finally, the extent of foreign ownership or control of economic units in Australia, Loveday notes, is not as completely under the control of Australia's governments as they would be under a corporatist regime (91).

**Elements in the Policy-Making Process**

This study argues that the policy processes which relate to transport infrastructure location in NSW are determined and characterised by the action of a multiplicity of vested interests. Pressure groups are defined by Muir and Paddison (92) as any "organised group which attempts to influence the decisions of government or other public bodies without itself being a political party or seeking to exercise the formal powers of government". This definition, Matthews (93) argues distinguishes pressure groups from political parties because the groups, while attempting to influence government in the policy-making process, do not themselves seek the responsibility of governing. It also precludes
political parties from pressure group status. Even minor parties with a negligible chance of winning government, Matthews suggests (94), are distinct from pressure groups because their main purpose is either to influence or undertake government directly, or by forming a coalition if the opportunity arises.

This does not mean that political parties are inert in so far as determining or influencing policy decisions are concerned; rather, it suggests that policy issues embraced by them are part of a broader political platform. On the other hand, Matthews argues, a group which promotes a single cause and that fields candidates in a general election is regarded as a pressure group. In this case, it uses the electoral machinery as a means of publicising its cause.

Matthews (95), following Blondel (96) and Finer (97), has drawn a distinction between two types of pressure groups — sectional associations, which purport to speak for their sections in defence of their interests, and promotional associations which seek to promote a cause. This corresponds with Allison's (98) categorisation of interest and principle groups. Interest groups are based on
economic considerations and include corporations, trade unions and professional organisations. They may also include some non-financial factions such as local amenity associations and resident action groups (99). Principle groups, on the other hand, include those factions associated with broad based social issues. By way of example, a neighbourhood amenity society, as an interest group, might resist the location of a factory in its vicinity, not caring where it is located provided it is not in its residential surroundings. A principle group, on the other hand, might seek to resist the factory location in all residential neighbourhoods as a point of principle (100).

The effectiveness of a group, Grant (101) argues, depends upon two major interrelated factors - the resources at its disposal and its demands and goals. Non-sanctional resources of the group, he points out, include such factors as the size of the group, its leadership and organisation and its ability to fund and obtain the collection, collation and presentation of data. Other non-sanctional resources include the ability to acquire access to policy-makers, obtain support from the press, the general public or other agencies. Sanctional resources, on the other hand, include those
resources which can be used to threaten policymakers. These include the ability to influence voting behaviour at elections, for example, the ability to delay projects through either legal channels or non-cooperation, or even by the use of physical force.

Heclo (102) also argues that the effectiveness of a group relates to the demands and goals of that group and the legitimacy that policymakers accord these demands. He indicates that demands in the United Kingdom "perceived to emanate from 'unrepresentative' or parochially self interested groups which required a substantial change in existing policies or plans and which were presented in an intimidatory or unconventional manner, were poorly received. Groups with a tradition of participation in a responsible manner, on the other hand, were accorded higher levels of deference".

Fundamentally, from an analytical and conceptual point of view, the significant aspect of pressure group behaviour is its ability to influence policymakers. In absolute terms, the effectiveness of a group will be measured by the degree to which relevant decisions would have been made differently, or not at all, if the groups concerned had not
acted. Thus investigation into pressure group activity is likely to yield an inexact and incomplete measurement of effectiveness, partly because of difficulty in measuring concepts such as 'influence' and 'power', and partly as Muir and Paddison (103) point out, the problem of existence - that is, the uncertainty of knowing what would have been if event x had not occurred.

Despite this inherent limitation, pressure group theory has considerable merit. It explains observable differences in spatial patterns in those instances in which planning programmes have been similar. Grant's (104) study of local transportation planning in Portsmouth, Southampton and Nottingham, for example, indicated that despite the fact that the aims of the initial transport policies were similar in each city, the results of the case studies revealed that the three cities actually produced widely different transportation systems. These differences, Grant argued, were a result of, and reflected differences in, the interests of policy-makers and pressure groups involved.

Perhaps more importantly, pressure group theory as this study will demonstrate provides an explanation
of policy decisions which is consistent with 'real world' experience. Corporatism, on the other hand, is inappropriate as an explanation for location decision-making. Certainly the state, capital and labour are major, and indeed crucial interests in the policy process; but their role is precisely that - of participants in a process and not as an exclusive tripartite policy-making body.

The Policy Mechanism

(i) Power - The 'Organising Principle'

Pluralist theory rests on notions of power the exercise, of which Gross suggests (105), is a political process. We follow Hogwood and Gunn (106) and define the term 'political' to include, but not refer exclusively to party politics. Rather in our study we adopt a broader perspective which incorporates all "patterns of power and influence between and within organisations".

A major objective of all participants in the political process is the development and exercise of power which, Gross (107) points out, is the means of obtaining some desired goal and not an end in itself. He indicates that the pursuit of power for its own sake means "disregarding other objectives
and misunderstanding the nature of power itself. The critical importance of power, he argues, derives from its essential contribution towards achieving other purposes.

The formal analysis of power in various disciplines is characterised by a noticeable lack of agreement about its nature, its exercise and by whom it is used. Marx and Engels (108) for example, saw political power as the "organised power of one class for oppressing another" and Russell (109) defined it as "the production of intended effects". Weber’s (110) views reflected the political 'realist' position finding it useful to define, distinguish and interpret the state in terms of its power. He also saw power, however, as "the probability that one actor within a social relationship (would) be in a position to carry out his own will despite resistance, regardless of the basis on which this probability rests".

Studies in community decision-making usually assess power in terms of the ability to either formulate or to veto policies initiated by others. Bachrach and Baratz (111) note, however, that only rarely is it assessed in terms of the ability to prevent the expression of policy conflicts. By distinguishing
between decision-making and non-decision-making, they draw attention to the existence of power which can also prevent things from happening and which can be used to organise issues out of the political agenda.

Lukes amplifies this 'negative' aspect of power and points out that power is mobilised, not only to prevent issues and conflicts from entering the decision-making arena, but to prevent them from arising at all. He argues that "power can be used to prevent people from having grievances by shaping their perceptions, cognitions and preferences in such a way that they accept their role in the existing order of things, either because they can see or imagine no alternative to it, or because they see it as natural and unchangeable, or because they value it as divinely ordained and beneficial" (112). He further suggests that the study of power is not to be confined to observable conflict, the outcomes of decisions or even suppressed issues but must include "the question of political inactivity and quiescence; why, for example, grievances are not formulated; why demands are not made; and why conflict does not arise since this may also be the result of the exercise of power" (113).
In addition, Hardy (114) suggests there exists an unobtrusive side of power which refers to the ability by policy-makers to secure preferred outcomes by preventing conflict from arising. The essence of unobtrusive power is the ability to give meaning to events and actions, and to influence the perception of others so that they either remain unaware of the implications of political outcomes or view them in a favourable way. Unobtrusive power, she argues, is thus founded on the ability to define reality, not only for oneself, but for others (115).

For the purpose of this study we define 'power' as the ability to influence and to control, in varying degrees, the actions of participants and interests in the policy process. This exercise may be covert or overt and invariably is carried out in order to serve personal or group interests.

(ii) The exercise of power

Dahl (116) sees power as a means to an end and defines it as a "subset of relations among social units such that the behaviour of one or more units depend in some circumstances on the behaviour of other units". A power relation exists, he points out, when A has power over B to the extent that A can get B to do something that B would not otherwise
do (117). A more complete statement of power, however, would include - (a) the source, domain or base of power; (b) the means or instruments used to exert power; (c) the amount or extent of power; and (d) the range or scope of power.

The base or source of power consists of all resources and opportunities that can be exploited in order to influence the behaviour of another. The base in itself, Dahl suggests, is inert and must be exploited in some fashion if the behaviour of others is to be altered. The instruments of exploitation are numerous. Persuasion, Lindblom (118) indicates, is a principal source of control and takes place when "A influences B to adopt a course of action without A's promising or threatening any reward or punishment and may take the form of example, expectation, proposals, information, education or propaganda".

Threat is a further form of pressure and is applied by A upon B whenever A tries to make a course of action more desirable by threatening contingent rewards or punishments (119). In constitutional democracies, however, as Lindblom (120) notes, policy-makers are constrained, legally and morally, in the threats and injuries they can inflict on each
other and, generally, are restricted to attempts to obstruct programmes. Policy-makers may also seek to gain control by threats such as loss of job, alienation of friends and supporters, loss of money and withdrawal of labour.

Bargaining is a pervasive form of pressure. In a bargaining process all sides exercise influence upon each other through reciprocal promises or threats. The objectives, the rewards and the punishments are all subject to negotiation. The promise or actual exchange of benefits, Gross (121) indicates may also be a source of power and is part of a bargaining process and a mechanism of reciprocal control in which both parties may gain.

Lindblom (122), in an oft-quoted description, sees the policy process as a 'play of power'. Power, he argues, is related directly to resources and is tied to specific issues. The process proceeds by interaction and a series of negotiating steps between groups using a variety of resources and techniques in order to reach a compromise solution.
"Muddling Through" - Policy-Making as an Incremental Process

In a pluralist system policy-making does not proceed on a rationally planned and objective basis - instead it is a negotiated process. Policy changes, in this system, do not move in leaps and bounds, nor are major reform programmes generally undertaken. Rather policy proceeds on an incremental basis. The policy-maker, relying heavily on the record of past experience, introduces policy changes through a number of incremental adjustments to existing policy [Lindblom (123)]. Even the resolution of major problems, Braybrook and Lindblom (124) suggest is a product of a long series of incremental actions.

Incrementalism, as proposed initially by Lindblom and somewhat later by Richardson and Jordan, for example, is an alternative to the synoptic or 'scientific' policy-making model proposed by March and Simon (125), in which the policy-maker identifies and formulates a problem; canvasses all possible solutions; examines the suitability of all alternative solutions and consequences of each and then proceeds to a final choice.

Lindblom (126) rejects this synoptic model arguing that in this conceptualisation policy-making becomes
essentially an intellectual exercise and finds it inappropriate except for relatively simple problems. Synoptic analysis for complex issues, he suggests, is beyond human capabilities in that no person, committee or research team even with all the resources of modern electronic computation, can complete the analysis of complex problems using this method. There are, he notes, "Too many interacting values at stake, too many possible alternatives to consider, too many consequences to be traced through an uncertain future". For complex policy issues, "administrators must find ways of simplification which can be achieved by limiting policy comparisons to those policies which differ in relatively small or incremental degrees from existing policies".

In addition, synoptic analysis is unlikely to occur as much of the information required may not be obtainable - time may be short, needed data lacking or conflicting, and forecasting the future difficult. Moreover, as Spann (127) points out, public policy decisions are made under conditions of uncertainty. These relate to what the facts really are, what the probable costs and benefits of different policies are and the intentions of policy-makers in related fields. These place severe limits
on the degree to which policy-makers can consider all the alternatives and their possible outcomes.

The synoptic model further suggests that the policy-making process is a finite process and that problems are identified and resolved once and for all. Lindblom (128) argues, on the contrary, that issues are rarely resolved — instead a strategy is frequently adopted which copes with problems on a temporary basis. Policies, in fact, are made and remade and incrementalism, he points out, is a process of successive approximations to some desired objectives in which the goals themselves continue to change under a process of reconsideration.

Opponents of incrementalism generally espouse concepts of rational choice, or some deviation, as an ideal for professional policy-makers and administrators. Dror (129) argues, for example, that though incrementalism closely resembles reality, the concept comprises a built-in conservative bias and constitutes an innovation retarding factor. In addition, he argues that the taking of incremental policy steps which differ in relatively small degrees from policies presently in effect, is sound advice provided that the results of present policies are, in the main, satisfactory and
when marginal changes are sufficient for achieving an acceptable rate of improvements in policy results. When the results of past policies are undesirable, however, rather than proceed and aim at improvement by way of incremental steps, it is preferable to take the risks involved in radical new departures (130).

Dror further points out that when "there are no past policies in respect of a particular issue, then incremental change is not possible" (131). Lindblom's thesis, he argues, serves as an ideological reinforcement of the pro-inertia and anti-innovation forces prevalent in all human organisations. He points out that a tendency exists in most organisations, in any case, to limit the search for alternatives to a minimum. Thus, he sees little danger of the administration becoming bogged down in an exhaustive search for all possible alternatives and a full enumeration of consequences. Dror argues the synoptic model should be maintained as an ideal in order to stimulate and encourage administrators to emulate its technique (132).

Etzioni (133), like Lindblom, argues that the synoptic model is utopian in its assumptions, unrealistic and undesirable (134). But the
limitations of the incremental model, he points out, are not applicable to fundamental or major decisions. He suggests, rather, that the approach to decision-making requires two sets of mechanisms. The first is a high order fundamental policy-making mechanism in which decisions are made by exploring the main alternatives but in which detail and specifications are omitted so that an overview is feasible. The second, an incremental decision-making process is adopted but within the contexts set by fundamental decisions. Etzioni (135) argues that the adoption of elements from both models will reduce the effects of the particular shortcomings of the other. Incrementalism reduces the unrealistic assumption of the synoptic model by limiting the details required in fundamental decision-making, and synoptic elements will help to overcome the conservatism of incrementalism by exploring longer term alternatives.

It is somewhat naive, perhaps, to suggest that a major policy issue frequently steeped in controversy can be divorced from its political context and resolved according to economically rational criteria. In fact, the policy process is inextricably tied to the political system within which it occurs and which Lindblom (136) argues is,
itself, essentially incremental. Political parties compete for votes, for example, by agreeing on fundamental issues and offering only incrementally different policies.

The persistent adherence to an incremental political process reflects the attitudes, interests and values of the electorate which, in a relatively stable democracy are attributed to a widespread consensus of fundamental values; frequent widespread agreement on the general direction and character of desired social change; and relatively greater confidence in the predictability of consequences of incremental as against drastic social change (137). Lindblom suggests that when citizens live in a society marked by a consensus on fundamental values and are dubious about the predictability of large scale change, the demands upon the political leadership will, in fact, have the effect of buttressing incremental policies (138).

Government resource allocation and the budgetary process also promote an incremental policy process. Departmental budgets are invariably adjusted on a marginal basis and. Wildavsky (139) points out, are rarely reviewed as a whole, in the sense of considering at one time the value of all existing
programmes. Rather, he suggests, assessment and budget allocations are invariably based on the previous year's expenditure. This means the greatest part of any budget is a product of prior decisions. Long range commitments have been made, however, and mandatory programmes exist whose expenses must be met. These factors, together with committed political support for other activities, means that officials concerned with budgeting activities must spread their resources over a number of programmes. The result is that rather than complete a comprehensive reform programme, funds are allocated to make incremental or marginal moves on a number of projects.

III: EXPLAINING INFRASTRUCTURE LOCATION: OPERATIONALISING THE CONCEPTUAL FRAME

To what extent can these fundamental notions of pluralist theory be particularised to provide a framework for analysis of the locational aspects of export coal transport infrastructure in NSW? And how can notions of power, of political process and of incrementalism be operationalised to explain infrastructure location? In this section we look more closely at these questions.
It is clear, from the earlier discussion, that although increasing attention has been paid in the geographic literature to the relationships between conflict, decision-making and what might be generally termed the 'political variables' and the provision and location of transport infrastructure, by and large it has failed to develop a cohesive conceptual framework.

This thesis argues that a 'political' perspective is fundamental to adequate explanation; and that, as Muir and Paddison (140) point out, the concepts and models developed within political science have special relevance. Further, it is suggested that pluralist theory, with its focus on power and the interaction of groups wielding power to a greater or lesser degree, provides an appropriate conceptual framework within which to explore questions of infrastructure location.

It is further argued that incrementalism is the fundamental structuring process in the provision of transport infrastructure; and that it is a necessary outcome of a pluralistic and compartmentalised decision-making framework which comprises
(i) a set of elements which participate in the policy-making process, and
(ii) a mechanism which operationalises the process and which is based on the concept of power.

Elements in the policy process

While the power to initiate policy relating to coal transport infrastructure may formally be the responsibility of a relatively small number of representatives, the actual decision process is influenced by powerful factions.

In this section we will look briefly at the participants in the 'power play' which has characterised coal transport infrastructure policy in NSW and the dynamics of the policy process. While each group may present superficially a united front, it may, in fact, be further divided and fragmented as it may comprise factions within it also pursuing vested interests. Thus not only is the policy process itself influenced by numerous interests, but the individual factions themselves may be subject to pressure group forces from within.

Government, for example, is the major initiator of infrastructure policy, but it is by no means a univocal or monolithic force. Governments at three
levels - federal, state and local - are engaged in the activities associated with the extraction and export of mineral products and the provision of associated transport infrastructure. With each having a fairly rigid frame of distinct, though interdependent responsibilities, a built-in potential for conflict exists.

The division of government structures into elected representatives and appointed administrative branches also underlies problems in the policy process. Ideological differences and conflicting motivations for pursuing particular policies may arise. The aims of elected representatives, for example, are likely to be determined by short term electoral demands while policy choices of bureaucrats will be dictated by criteria related to longer term, career advancement.

Division within the structure of complex, modern governments also occurs as government functions are increased and the provision of services expanded to become the responsibility of a number of separate, and often relatively independent statutory agencies. Such bureaucratic fragmentation may lead to sectoral politicisation of policy issues and present serious obstacles to integrated and comprehensive planning.
The Corporate Sector

The mining companies engaged in coal export are, for the most part, large national and transnational companies (although approximately 7% of coal mines in NSW are owned by the Electricity Commission of NSW (Elcom), a NSW Government authority which, recently, has begun to export some of its surplus production) (141). Generally large and individually powerful organisations, the fragmentation and disunity between a number of essential competitors, however, has weakened its potential for collective action and has frequently become an obstacle to agreement on policy issues being reached.

Trade Unions

Trade unions may not participate directly in formulation of policies but are extremely influential when implementation is attempted. Implementation of controversial policies may be dependent upon the cooperation of interest groups and in this regard trade union sanction and approval may be crucial. Trade unions may exert influence in a number of ways but industrial action and the imposition of bans have widespread consequences resulting in modifications of plans or the abandonment of particular projects. Union
participation may also have a positive effect, however, and actually enhance the implementation process.

The trade union movement also is highly fragmented with more than thirty unions engaged in the mining, preparation, transport and export of coal operations. Thus considerable potential for inter-union conflict exists.

Intra-union conflict, however, also occurs as frequently agreement on policy issues cannot be reached and factions within a particular union are formed.

Resident Action and Environmental Groups

Resident action and environmental groups may fall into either sanctional or promotional group categories though often they emerge, in the initial stages at least, from affected communities. Frequently these groups may not have the necessary resources and political clout to directly influence the policy process in their own right, but their not infrequent alliance with trade unions, for example, or the obtaining by them of favourable media coverage may result in the disproportionate prominence of these groups in locational conflict.
issues. In addition, in some instances resident action and environmental groups may gain the support of a political party and their cause becomes aligned with and part of an election platform. These factions may exert considerable influence particularly in marginal electorates.

The Dynamics of the Policy-Making Process

How, then, are decisions about export coal transport infrastructure made? Is it possible to define the elements and the relationships between them in the policy-making process? Or is the process an essentially *ad hoc* one in which there is no clear mechanism?

An earlier study by the author (142) of the decision-making mechanisms for coal infrastructure in the Illawarra proposed a normative model which is introduced here, with slight modification (Figure 1.1).

It provides an important framework for further discussion and one against which the policy-processes described in the four case studies which make up Part II of this thesis may be evaluated.
The model recognises two fundamental stages, implementation and formulation. Some authors argue, of course, that as policies undergo change whilst implementation is attempted it is not possible to distinguish between formulation and implementation. Majone and Wildavsky (143), for example, point out that "implementation does not assume a fully articulated decision - rather it creates and recreates".

Nonetheless, despite this likelihood of change and the fact that it may be difficult to differentiate between the actual formulation and implementation stages it is necessary, if we are to analyse the dynamics of the process, to separate them into sequential segments. Thus, while recognising the difficulty in separating the two processes, the making of a policy does envisage a striving for some future state which implies that implementation must at least be feasible. The notion of implementation similarly implies the existence of some plan to act upon and implementation without the existence of a policy is a nonsense.

In any case, in the model the first stage begins with the identification of a problem which prompts policy-makers into action. This may originate from
mining companies acting in response to market forces, for example, or by pressure from a government agency.

A project proposal is subsequently developed - by the State Government generally, although in the past the development of coal loading facilities has also been proposed by the private sector.

The model suggests that once the proposal has been developed, at least in its initial stages, formal action is appropriate. This may take the form of one or several specific actions - the preparation of an Environment Impact Statement (EIS), a Public Exhibition or a Public Inquiry. Since 1972, for example, the preparation of an EIS has been required by the State Government for all major projects as well as the public exhibition of a project proposal. A Commissioner is appointed to inquire into the feasibility or desirability of the project and interested parties are invited to make submissions to the Inquiry. As a result of the Inquiry a recommendation is made to Government.

The model suggests that this ought not to be the final action of the planning stage (as it so often
has in the past) and the prelude to immediate implementation.

Rather, the more appropriate action at this point in time is to allow for, and indeed encourage, the full 'play of power' among the various power groups concerned with the problem - in the case of coal transport infrastructure decisions these will include Pressure Groups of one sort or another, Trade Unions, Government Opposition and Political Parties and individual politicians. Effectively, there will be consensus seeking behaviour which will converge on a Project Decision and though some will win and some lose it is at this point that Implementation may begin.

That implementation may still not be perfectly smooth is clearly recognised in the model. In fact, reaction to a Project Decision will likely exist; but it is at this stage a 'Residual Power Play' that will normally affect Implementation 'at the margin' rather than destroy any chance of Implementation at all.

Finally, the model indicates that spatial change will result.
Clearly, the policy process does not proceed as a rationally planned objective activity. Rather, agreement on policy issues is difficult to reach and policy formulation and implementation are extraordinarily complex and highly politicised processes.

The political nature of the activity, the number of participants involved and, perhaps most importantly, the political and economic context within which policy is developed inhibits comprehensive, integrated and long-term planning from being carried out. This study will illustrate, in fact, that policies are developed incrementally and in isolation of related requirements.

IV: OUTLINE OF THE THESIS

This thesis focusses, as we have noted, on the relationships between the policy-making process and the location of transport infrastructure. Its perspective is locational - the pattern and structure of transport networks for NSW export coal from the early 1970s; but its analytical focus is the mechanism of transport policy-making and decisional analysis which reveal the fundamental
nature of the policy process – the elements involved, the power linkages, the 'play of power'.

In structuring the thesis, therefore, our concern has been twofold – first, to demonstrate the fundamental nature of the policy-making process; and second, to demonstrate the relationship between the process and the structuring of the transport system, or elements in a system. For, in this context, as in the earlier work of Eliot Hurst and others, a 'system' is denoted, quite specifically, as a set of nodes (or ports), a set of links between them (rail lines and roads) and a set of directional flows, either of export coal or of vehicles which move over them under conditions determined by market forces or a regulatory body or by both.

Thus, in addition to chapters which focus on explanation of the nature of the policy and decision-making process per se (Chapters 1, 7), in the detailed, empirical chapters we examine the location of ports (nodes) in terms of the decision-making process (Chapters 3, 6), the structuring of modal, feeder networks (Chapter 5) and the regulation of flows on feeder networks and its implications for nodal restructuring (Chapter 4).
A further general point is important: the study relies on a case study approach rather than a broader, general treatment. In so doing it has been possible, indeed necessary, to examine in considerable detail the often extremely complex decision-making process characteristic of infrastructure decisions. Though there is some overlap, for the most part each case study has been selected not only in terms of the specific infrastructural elements in the transport network, as we have suggested above, but also in terms of the differing principles exemplified in the policy process and the differing roles and power relationships of particular groups.

An extensive programme of structured interviews, access to company records and reports and careful scrutiny of newspapers and records of meetings have, in addition to the more usual aspects of fieldwork, library research and discussions, provided important perspective on the policy process.

The thesis falls into three major sections. The first provides a background, both conceptual and empirical, to further discussion. In Chapter 1 the thesis is concerned with establishing an appropriate conceptual framework. It focusses on explaining the
nature of the policy and decision-making process. In the following chapter we focus on some empirical aspects of the coal mining industry and transport infrastructure provision. It traces the dimensions of industry change over a period of time— in production, exports and ownership, for example. It examines the impact of industry growth on the existing network and suggests that considerable pressure was created on it, as well as on the policy environment which was unable readily to handle and cater for the dramatic changes occurring.

Part II comprises four case studies each of which focusses on particular infrastructural elements in the total export coal transport network and which demonstrates the relationship between the inherently political policy processes and infrastructure provision and location.

Chapter 3 focusses on the provision of coal loading infrastructure— Botany Bay and Port Kembla—and on the politicisation of the policy process surrounding this development. This chapter demonstrates the significance of marginal electorates, negative externalities and the role of pressure groups in determining infrastructure provision and location.
Some consequences of political decision-making are investigated in Chapters 4 and 5. Chapter 4 illustrates the significance of political decision-making in determining the location and structure of feeder networks to ports. It focusses on the dynamics of a politically motivated regulatory mechanism which determines traffic flows to particular ports.

Discussion in Chapter 5 looks at the impacts of coal loader location on the existing transport network. It investigates the further responsibilities placed on government to provide appropriate mine to port transport infrastructure and the spatial disequilibrium which occurred when government failed to develop rail infrastructure.

Chapter 6 also investigates the provision of port facilities but unlike Chapter 3, focusses on coal loading development within a single port area. It underlines the problems associated with development occurring within a policy environment in which conflicting ideologies, inter- and intra-government conflicts arise, and the uncompromising actions of power groups such as trade unions, and coal
companies, which create effective obstacles to policy implementation.

Part III of the thesis once again turns to the policy-making process, although in Chapter 7 the focus is specifically on policy implementation, rather than on formulation. The chapter examines the conceptual framework of implementation process. The chapter also explores a mechanism developed to enhance the policy process. It is a new and innovative development in the area of policy-making - the establishment of the Hunter Valley Coal Chain Council - and has significant implications for the policy-making process. It is a consultative mechanism aimed at smoothing policy and implementation processes. By adopting a consensus seeking strategy its aims are the prevention of prolonged and disruptive delays by way of negotiating and discussion rather than the customary confrontationist approaches characteristic of much of the policy process under investigation.

The concluding Chapter 8 provides a summary of the thesis findings and highlights specific problems associated with particular areas of the policy process. It provides also some insights into the possible improvements of this process.
REFERENCES AND FOOTNOTES


10. Ibid, p.413. See also Smith, R.H.T. (1962), *Commodity Movements in Southern NSW*, Department of Geography, Australian National University, Canberra.


33. Ibid., p.175.

34. Ibid.

35. Ibid., p.164.


37. Ibid., p.12.

38. Ibid., p.15.

39. Ibid., p.39.

40. Ibid., p.141.

41. Ibid.

42. Ibid., p.143.


44. Ibid., p.ix.

45. Ibid, p.xi.

46. Ibid, p.2.

47. Ibid, p.ix.


49. Ibid., p.15.

50. Ibid., p.15.

51. Ibid., p.17.


55. *Ibid.*


72. Ibid. p. 30.

73. Ibid. p. 31.


79. A deductive argument does not demonstrate accuracy or otherwise of content, only the soundness of reasoning. An argument may be valid even though the premises and conclusion are wrong.


82. Dunleavy, P. op. cit.


91. Ibid. p.50.


94. Ibid, p.448.

95. Ibid.


100. Ibid, p.119.


The response to fundamental changes in the global demand for coal since the 1960s led to the rapid growth of the Australian coal industry. Significant changes in mining operations occurred and production increased fourfold, exceeding 158 million tonnes in 1985 (1). Australian coal exports were valued at $5,132 million in that year (2), the industry provided 31,133 jobs in direct mining occupations (3) and was a major source of revenue for State and Federal Governments.

Industry growth occurred in response to a number of local and overseas developments - initially this led to changes in the pattern of domestic consumption and was to be followed somewhat later by the growth of the export sector.

These developments occurred within a complex and fragmented policy environment in which controversial issues, complicated by pressure group demands, became highly politicised and policy decisions increasingly difficult to either make or implement.
The rapid expansion of Australia's largest export commodity created severe pressures on the existing transport network. Spatial disequilibrium emerged as production and export tonnages increased but associated infrastructure developments failed to keep pace with market demands - the transport and port systems, in fact, were to become constraints on industry growth.

**Growth of Production in NSW**

Australia's black coal production between 1960 and 1985 increased from 23.3 million tonnes to 158 million tonnes (Table 2.1). In this period there were a number of distinct phases: up to the mid-1960s the industry was dominated by the modernisation and adjustment of the domestic sector to a rapidly expanding industrialising economy; from the mid-1960s growth in the export sector was marked, with strong demand, at first, for coking coal for the rapidly developing overseas steel industries, and after the mid-1970s for thermal coal; and during the 1970s there were large exports from the Queensland fields, dominated almost exclusively by coking coal though after 1984 including increasing quantities of thermal coal.

In the period up to 1986, growth in the NSW industry resulted in production increases from 18 million tonnes in 1960 to 80 million tonnes (Table 2.1). Coal mining in NSW had traditionally been carried
### TABLE 2.1: Raw Coal Production by States and Districts 1960-1986 (million tonnes)

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<th>South Maitland</th>
<th>Newcastle</th>
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out in a number of districts. In the Hunter Valley, for example, Newcastle, Maitland and Cessnock were long established mining areas providing coking coal for local manufacturing industry and thermal coal for electricity generation. Though some mining operations were also carried out in the Singleton/Muswellbrook region providing thermal coal for local power station operations, the rapid expansion of this area did not occur until after the 1970s energy crises. The Western district, also an established coal mining region, provided thermal coal for local electricity generation. The South Coast and Burragorang Valley mines provided coking coal for local use in manufacturing industry and some export, and some thermal coal for local power station operations and for blending purposes (Figure 2.1).

Growth in NSW coal production has displayed some considerable spatial differences with traditional coking coal areas, focussed around Newcastle, doubling output between 1966 and 1986 - initially to supply the expanding local steel manufacturing industry and somewhat later overseas markets (Table 2.1). Production increases similarly occurred in the South and Southwestern regions with fourfold increases occurring in Burragorang Valley mines in the decade leading up to 1970 and maintaining that level until the early 1980s, and a slower but
FIGURE 2.1: Major NSW Coal Mining Districts and Loading Ports

Source: Joint Coal Board
continued growth in South Coast mines where production doubled between 1965 and 1985. The Western district also experienced a gradual increase during the 1970s with the development of export markets, but was characterised by rapid growth after 1980 following the opening of the Ulan opencut operations.

Older established thermal coal areas however, such as the Maitland field, catering exclusively for domestic markets, were unable to make the changeover to export production, and experienced a decline. Coal from this field was primarily for local use by small industries and the Public Transport Commission (PTC). But, in 1950, prompted by the availability of oil as an inexpensive fuel, the Commission replaced the locomotives with diesel engines, and in local industries also oil began to replace coal, leading to a reduction in coal demands.

Growth up to the mid-1960s was almost exclusively for domestic consumption and was tied to the expansion of steel and manufacturing industries and increasing electricity demands within Australia. The growth of domestic markets was encouraged by a State Government whose strategy was aimed at establishing the Hunter Valley as the major source of electricity for NSW - so successful was this strategy that by the 1980s the region was providing
approximately 90 percent of the state's electricity supply (4). This programme was further boosted by the establishment of energy intensive industries, such as aluminium smelting in the Hunter region.

In the latter half of the 1960s however, growth in coking coal exports also occurred. This was in response to the expansion of global steel production and initially was destined primarily for the Japanese steel mills. Australia, however, was well located geographically to serve the needs of the rapidly expanding manufacturing economies of Korea and Taiwan and in the 1970s increasing quantities of Australian export coal would be sold to those countries.

Coal exports were further accelerated in the ensuing decade with the rise of thermal coal exports following the energy crises of the 1970s. The first oil shock in 1973-74, which resulted in a fourfold increase in oil prices, led to expectations that coal would replace oil as a primary energy source in electricity generation operations, especially in Japan and some European countries heavily reliant on increasingly expensive oil imports. Thermal coal which had until the early 1970s been exported on a small scale only, and as a by-product of soft coking coal, now became economically viable to produce specifically for export purposes. In 1972, for
example, NSW thermal coal exports had totalled less than 1 million tonnes (Table 2.2) but by the following year, as Fisher (5) notes, NSW producers "had entered into a series of new contracts calling for the export of 8.3 million tonnes of thermal coal over the two years to December 1975".

The demand for thermal coal was to be intensified after the second oil crisis in the late 1970s. This second increase was preceded by a widespread global belief that oil prices would continue to rise and would become increasingly scarce. In the United States, for example, President Carter envisaging the continuing competition for high priced oil had announced a national energy plan aimed at increasing coal production by about two thirds (6). It was suggested that by the mid-1980s "the United States would be vying for scarce oil against its allies and other consuming nations, including the Soviet Union. When that occurred, it was anticipated that prices would increase dramatically as a result of tremendous pressure on world oil supplies (7)".

The Emergence of the Queensland Industry

A widespread optimism in the future of the coal industry thus persisted throughout the 1970s which saw in that time the emergence of the Queensland coal export industry. Although Queensland's development lagged somewhat behind that of NSW,
TABLE 2.2: Coal Exports from NSW and Qld. by types 1970-1986 (million tonnes)

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Source: Joint Coal Board, Black Coal in Australia 1985-86, pp. 91 and 113; and
Joint Coal Board, Black Coal in Australia 1986-87, pp. 101-117.
exporting about half of NSW tonnages in 1970, its development certainly began to surge in the 1970s and by the end of the decade its export tonnage was approximately that of NSW (Table 2.2).

The first Queensland export coal project development was at Moura and though initial operations commenced in 1959 its large scale development did not proceed until the Moura-Gladstone rail link was completed in 1968. This project was followed by further developments - Blackwater, for example, was developed by Utah in 1967 and Goonyella by Central Queensland Coal Associates.

Though some thermal coal has traditionally been mined in the West Morton fields near Ipswich, and although increasing quantities of thermal coal have been exported since 1984 (Table 2.2), coking coal constitutes Queensland's major export product - Queensland producers, in fact, compete with NSW for overseas export markets. In addition, Queensland mines are not subject to Joint Coal Board (JCB) control and have the advantage of large scale opencut operations. This means, in effect, that they are somewhat better placed than NSW mines to capture export markets and tend to be more cost efficient (8).
Changes in Industry and Ownership Structure

Growth in NSW production and exports occurred as part of a widespread industry and ownership restructuring process. Traditionally, ownership of NSW coal mines had been held either by a large number of relatively small companies, or were captive mines associated primarily with electricity generation and the steel industry. In 1963/64, for example, 44 percent of all NSW coal was extracted from captive mines (Table 2.3). The balance was mined by a large number of relatively small companies.

Industry and ownership restructuring, however, led to the takeover of many smaller holdings, initially by Australian and later by transnational companies. Gibson (9) points out that Broken Hill Proprietary Ltd. (BHP), for example, in conjunction with its subsidiary, Australian Iron and Steel Pty. Ltd. (AIS), had established a coal mining division and taken over numerous collieries and small companies (Figure 2.2) - these mines became vertically integrated with the monopoly steel sector and became the models of efficiency among an otherwise traditional and outdated coal industry (10). By 1980 BHP-owned mines in the Hunter Valley and the South Coast regions were producing almost 7.2 million tonnes of coal annually (11) and the company’s steel making capacity had increased from
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Source: Joint Coal Board, Black Coal in Australia 1986/87, p.29.
FIGURE 2.2: Corporate Development of BHP Coal Mining Division

approximately 2 million tonnes in 1950 to more than 10 million tonnes in 1980 (Figure 2.3).

But the dramatic growth of NSW coking coal exports did not occur until the entry of transnational capital into the industry. By the mid-1960s the establishment and takeover by Daniel Ludwig saw the acquisition of JCB and state owned mines in the Burragorang Valley by a multinational shipping company. This company was to expand not only in the Southern and Southwestern region but also into the Western district and the Hunter Valley. Figure 2.4 illustrates the development of Clutha Development Pty. Ltd. (Clutha) which subsequently became a wholly owned subsidiary of BP Australia.

The initial investment of overseas capital and takeover by transnational companies of NSW coal resources was specifically aimed at coking coal developments serving the needs of the rapidly developing overseas steel industries. The oil crisis of the 1970s saw the massive takeover by a number of transnational oil companies of Australian coal resources, as coal production became part of a global energy strategy. Fisher (12) points out that "a flood of forecasts on energy demands indicated the need for extraordinary development and a vast expansion of the industry. A number of oil companies consequently invested in local mining
**FIGURE 2.3:** Australia's Steel Making Capacity 1920 - 1983

FIGURE 2.4: Corporate Development of Clutha Development Pty. Ltd.

ventures to cater for the anticipated needs of the primary energy market which it seemed oil would not be able to meet". Massive increases in capital expenditure in the NSW coal industry — from $50 million in 1970/71, to $822 million in 1981/82 — consequently occurred (Table 2.4) (13).

Operational and Technological Changes
The large scale investment in the mining industry during the 1970s led to the opening and development of a spate of new mines. Changes in the structural and operational aspects of the mining industry were also occurring at this time which led to further production increases. These included the actual method of extraction, for example, and a subsequent move away from relatively small underground operations in which raw production had rarely reached 2 million tonnes annually, to the highly productive large scale opencut operations, such as the Hunter Valley No. 1 (4.3 million tonnes in 1985/86), Ravensworth (3.8 million tonnes) and Ulan (6 million tonnes) (14). Opencut mining which had constituted a mere 8 percent or 2.8 million tonnes of total output in 1970 had increased to 40 percent — 30.7 million tonnes — by 1985 (Table 2.5). In addition, operational changes in underground mining with the introduction of mechanical longwall technologies had led to a greater percentage of recoverable resources and increased productivity.
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Source: Joint Coal Board, *Black Coal in Australia 1986/87*, p.49.
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</table>

Source: Joint Coal Board, *Black Coal in Australia 1985/86*, Sydney, p. 27.
than was possible with conventional underground mining techniques and had led to further increases in production (15).

**Growth in NSW Exports**

The growth of NSW coal production led to large increases in exports (from 5.5 million tonnes in 1965 to more than 40 million tonnes in 1986 - Table 2.6). Export growth was not uniform throughout the state and occurred over a number of distinct phases and periods. Growth in the coking coal export sector occurred after the mid-1960s and continued throughout much of the 1970s. Exports in thermal coal commenced in the 1970s, increased in the mid-1970s following the first oil shock, and escalated dramatically in the 1980s when the large thermal coal mining operations established as a result of the second oil crisis, came on stream.

The expansion of the global and Australian steel industries had led to a growing demand for coking coal and resulted in the expansion of mining operations and exports. In the Burragorang Valley growth in production had increased from 1.5 million tonnes in 1960 to almost 5 million tonnes in 1969. By 1970 the Burragorang Valley mines were producing 4.9 million tonnes of washed coal, almost 3 million tonnes of which were exported (16). Following the takeover of the mines by Daniel Ludwig during the
<table>
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<th>Year</th>
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<th>Queensland</th>
<th>Australia</th>
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1960s the company speculated that further increases would occur and were expected to reach 10 million tonnes annually - some of this increase was for local consumption but the bulk of it was destined for overseas exports.

Coking coal producers in the South Coast district also experienced export increases during the 1970s with the opening of a number of new mines, such as the development of Westcliff Colliery by Kembla Coal and Coke Pty. Ltd. (KCC). During this period BHP also expanded its mining operations which, initially was exclusively for domestic use in the local steel industries, but after the recession and the global decline in steel demand, began to look to export markets for its surplus coal production.

The Hunter Valley in particular saw a rather checkered export growth pattern with the expansion of coking coal exports, initially from the Newcastle area. Thermal exports from the Upper Hunter and northwest areas, such as the Singleton/Muswellbrook district, increased dramatically - from 5.5 million tonnes in 1977/78 to 19 million tonnes in 1986/87 (Table 2.7).

Considerable growth in exports from the Western field also occurred, increasing fourfold between 1977 and 1985. Coal from these mines was almost
### TABLE 2.7: Coal Exports from NSW by Districts, 1977/78-1986/87 (million tonnes)

<table>
<thead>
<tr>
<th>Year</th>
<th>South Maitland</th>
<th>Singleton North West</th>
<th>Newcastle</th>
<th>West</th>
<th>Burragorang Valley</th>
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* Combined Newcastle-South Maitland Total
** Combined Burragorang Valley-South coast total

Source: Joint Coal Board, *Black Coal in Australia 1986/87*, p.121.
exclusively for thermal purposes and until the early 1970s had been for domestic consumption, serving the local power stations and cement industries. The onset of the first oil shock, however, had led to the development of mining operations specifically for export production. Large opencut mining operations were established at Ulan, for example, following the second oil crisis which would boost Western exports further, especially in the 1980s.

II: SPATIAL DISEQUILIBRIUM WITHIN THE TRANSPORT SYSTEM

The Transport Infrastructure Network

The rapid growth of the coal export sector, the spatial distribution of new mine developments and technological and operational changes in production were to have a serious impact on the transport system – on both mine to port networks and coal loading infrastructure.

In the early 1970s three NSW ports had coal loading facilities – Sydney, Newcastle and Port Kembla – with a combined coal loading capacity of less than 14 million tonnes. The Balmain coal loader, until its upgrading in the late 1970s, had an annual capacity of 2.8 million tonnes. Though the theoretical capacity of the Port Kembla loader was 6
million tonnes, its actual capacity was, in fact, less than 5 million tonnes (17). And exports channelled through the port of Newcastle were loaded at the Carrington Basin loader which could handle approximately 6 million tonnes each year (Figure 2.1).

Coal was transported to the ports along a number of rail networks and in the case of Port Kembla, and to a lesser extent Newcastle, by road as well. The northern coal areas were served by a rail line running virtually through the middle of the major coal bearing areas direct to the port of Newcastle. The double track, high capacity Maitland-Port Waratah section of the Northern Line had an annual coal carrying capacity of more than 30 million tonnes. Track capacity serving the Upper Hunter Valley region, however, was restricted to 8.6 million tonnes because of the single track Muswellbrook-Antienne section of the line. A further significant capacity problem area for future development was the Muswellbrook to Werris Creek and Narrabri section serving the Curlewis, Gunnedah and Boggabri areas. The steep grades, particularly the 1 in 40 grades along the Willow Tree-Murrurundi section, and the short crossing loops, limited the capacity along this section of the line to 3.5 million tonnes. The Gunnedah/Boggabri coal fields were estimated to have a potential coal reserve
possibly equal to that of the Hunter Valley and it would take little development to overtax this section of the railway line (18) (Figure 2.5).

The Western Line from Wallerawang and Lithgow to Balmain and the Southern Line from Tahmoor and the Burragorang Valley to Balmain had annual capacities of 9.6 million and 12.5 million tonnes respectively (19). The actual coal carrying capacities of these lines, however, were restricted by the receival and loading facilities at the Balmain coal loader. The Balmain facility had a stockpile capacity of approximately 30,000 tonnes which meant that coal in most instances was loaded directly from rail onto the ship. Rail operations were, therefore, directly tied to shipping schedules and the actual rail capacity was determined and constrained by loader performance and by actual ship loading rates.

The Burragorang Valley mines did not have a direct rail link to the Port Kembla loader though there did exist a comparatively long and indirect route along the Main Southern and Illawarra Lines. The Illawarra Line had an annual coal carrying capacity of approximately 8 million tonnes but was itself constrained by the single track Scarborough tunnel. Consequently, much of the Burragorang Valley export coal was transported to the Port Kembla coal loader by road (Figure 2.6).
FIGURE 2.5: Rail Infrastructure in the Hunter Region

Source: Coal Resources Development Committee (1083) NSW Coal Strategy Vol 2 Industry Review, September, p.31.
Pressures on Existing Transport Services

Although in most instances the existing transport network was able to handle the export tonnages up to the early 1970s, any further expansion was constrained by existing facilities, and any future export growth would require the availability of additional coal loading facilities as well as new or upgraded mine-to-port transport nets.

One of the first indications of transport constraints on development was evident in the Burragorang Valley where expansion of mining developments and export growth — estimated at approximately 10 million tonnes annually — was restricted by the existing infrastructure. The combined capacities of the Balmain and the Port Kembla coal loaders simply could not handle the projected increased tonnages. Further, though there did exist a railway line from the Burragorang Valley to the Balmain loader the indirect rail route to Port Kembla was a lengthy and expensive transport option. The rail distance from the Glenlee Washery to Balmain, for example, was 61 km while the distance by rail to Port Kembla was 143 km. This compared with the road distance from the Wollondilly Washery to Port Kembla of 88 km (Figure 2.7).
FIGURE 2.7: Distances of Western, Southwestern and Southern Mines to Loading Locations

Increases in export tonnages from the Western district were also constrained by port capacities. Western producers had annual contractual commitments for the mid-1970s exceeding 7 million tonnes (20) – this was equivalent to the combined capacities of the Balmain and Port Kembla loaders. In any event the Port Kembla loader was not considered a viable long term option for Western producers because of additional distances and transport costs involved. The rail distance from Lithgow to Balmain was 156 km compared with a distance of 233 km to Port Kembla (Figure 2.7).

In the port of Newcastle the Carrington Basin loader was handling all Hunter Valley export coal and by 1970 was working at capacity levels handling 6.5 million tonnes in 1969/70 (21). Hunter Valley exports could not increase until new facilities were completed. The actual Newcastle throughput was, in fact, exceeding loader capacity – "receival and loading facilities were operating at an exceptionally high utilisation rate and high berth occupancy and, as a result, frequently incurred excessive ship queuing costs" (22).

Although the Hunter Valley was served by a high capacity railway line (Figure 2.5), a new pattern of investment intensities led to the establishment of mining operations away from traditional mining areas
- the Singleton/Muswellbrook areas, for example, in the west the Ulan open-cut operations (23), and in the Northwest the Gunnedah fields. The Ulan mines, however, did not have direct rail access to its nearest port, Newcastle, and its export coal was transported by road to Gulgong from where it was railed to either Balmain (a distance of 364 km) or to Port Kembla (454 km) or occasionally if these ports were congested via Lithgow through the metropolitan area of Sydney and north to Newcastle - a distance of 532 km (24) (Figure 2.8).

The expansion of South Coast exports similarly were constrained by existing infrastructure and producers were looking to either the upgrading of the Port Kembla loader or the construction of a new facility in order to enable projected growths to occur. The JCB had estimated that the exports from the Southwestern, Southern and Western mines would range between 11.5 million tonnes and 16.7 million tonnes in 1980 with further increases up to 35 million tonnes by 1985. The Balmain loader was considered environmentally undesirable for either upgrading or replacement and the maximum throughput at the Port Kembla facility, even after upgrading work was carried out in the mid-1970s, was restricted to approximately 7 million tonnes (25).
FIGURE 2.8: Proposed Sandy Hollow - Maryvale Railway

The export growth of coal led to the inability of ports to handle the increased demand. This created ship delays and queuing problems, high demurrage costs were incurred and subsequently, the imposition by the JCB of export quotas. The inadequacy of the rail network led to long turnaround times of coal trains and the increased use of road haulage with associated social and environmental costs and problems. And the mining companies asserted that markets were lost as the companies were unable to meet contractual obligations as a result of congestion.

Response to Pressure

Development constraints and pressure on the transport network led to a number of proposals for infrastructure development being considered. These were set, however, within a conflict ridden policy-making environment, the issues frequently were controversial in nature and as a result invariably became highly politicised. Governments, in addition, adopted a reactive rather than an initiating role which led to a situation in which infrastructure requirements invariably lagged behind market demands.

Furthermore, the policy environment, essentially pluralistic in character was influenced by powerful pressure group forces, both within government
circles and without and, as a result, decisions were difficult to either make or implement. It also meant that major decisions concerning infrastructure provision essential for the development of Australia’s largest export commodity, though being politically expedient were not made to meet economically rational criteria or market demands.

One of the initial development proposals was made by Clutha in the late 1960s which, in order to enable the projected Burragorang Valley expansion to proceed, initiated the construction of a coal loader at Coalcliff together with the construction of a railway line from the Burragorang Valley to the new offshore facility. This proposal attracted a great deal of opposition from environmentalists and was abandoned amid considerable controversy. Clutha subsequently became part of a consortium which proposed the development of a new coal loader at Port Botany. Other consortium members were Coalex and Austen and Butta and the companies, anticipating a rapid growth in their overseas markets, required an efficient export outlet for Western and Southwestern coal.

Political pressure exerted by residents and environmentalists led to the abandonment of that venture and the decision made by government that Port Kembla would be the alternate site for a new
coal loader. But the essentially political choice was to create a spate of further problems — a suitable mine to port transport system from the Burragorang Valley to Port Kembla was not available, for example, and this committed government to the construction of a costly rail network over difficult terrain and traversing water catchment areas. The Western producers opposed the Port Kembla alternative because of additional distances involved compared with either Balmain or Port Botany; and as a consequence, and as part of an election strategy, government was committed to grant them a rail freight subsidy. It led to the further upgrading of the environmentally undesirable (26) Balmain coal loader where Western producers would be given preference loading over Burragorang Valley coal. This, together with the Labor Government’s coal on rail policy, would disadvantage and create further hardship for the relatively safe Liberal electorates in the Burragorang Valley area.

Pressures on the Hunter Valley port system led to the construction of Newcastle’s second coal loader in the Steelworks Channel by Port Waratah Coal Services Ltd. Planning of this facility had initially been undertaken by Gollin & Co. but after the company’s collapse had been continued by a consortium comprising almost exclusively transnational coal mining and Japanese consumer
interests. Completion of this facility was also conflict ridden and lengthy delays were experienced as a result of government and group pressures. In this case opposition was primarily of an ideological nature as the concept of private development of public facilities came under scrutiny.

Somewhat later the construction of Newcastle's third loader also was characterised by controversy. This time, however, while ownership was once again a contentious issue, conflict was restricted to the ranks of the State Labor Government - the pragmatism of Premier Wran being opposed by more traditional Australian Labor Party (ALP) ideological factions, led by Ferguson - the Minister for Public Works and Ports.

Some inconsistency is discernible in government's position, however, because in other instances the onus for the actual completion of a government owned project was placed with the private sector. The completion of the Sandy Hollow-Gulgong railway, for example, as the first stage of the Sandy Hollow-Maryvale line (Figure 2.8) was undertaken by Ulan Coal Mines Ltd. The $62 million project involved the construction of the 105 km Ulan-Sandy Hollow section and the major upgrading of the 43 km Sandy Hollow-Muswellbrook line (27). Planning of the railway had been first considered in 1911 and
construction had been commenced in 1936. It had not been finished, however, and its completion was once again mooted because it would reduce the distance from Ulan to the port of Newcastle, its nearest export outlet to 269 km (28). Ulan Coal Mines Ltd. held a mining lease in the area which the JCB estimated had an approximate coal reserve of 5,000 million tonnes (29). It was in the company's interest to proceed with the railway construction as the Board had placed a moratorium on further development until such times that adequate transport infrastructure was provided (30).

Further changes in infrastructure have been related primarily to the upgrading of existing facilities - the upgrading of the Balmain coal loader for example. This work included a rapid discharge unloading facility which increased loader capacity to 4.5 million tonnes, and the stockpile extension to 65,000 tonnes. Unfortunately insufficient space was available to install a balloon rail loop and the maximum train size the facility can handle remains restricted to 22 wagons.

Other upgrading work involved the deepening of the port of Newcastle by dredging the entrance, the Carrington Basin and the Steelworks Channel which enabled vessels up to 110,000 DWT to be fully loaded
at the Steelworks Channel loader and up to 60,000 DWT at the Carrington Basin loader (31).

Upgrading work was also carried out on the rail network - the introduction of unit trains, for example, and the construction of balloon loops where space permitted and traffic levels were adequate. The construction of overhead coal loading facilities improved productivity by enabling continuous rapid loading of trains. These developments were mainly undertaken and operated by colliery companies.

In the two decades leading up to the mid-1980s various proposals for the construction of new infrastructure developments have been made (Figures 2.5 and 2.6). Some projects did not proceed beyond the planning stages and some were abandoned while implementation was attempted. Invariably they were characterised by conflict. Furthermore, they emerged in a policy environment which was unable to handle dramatic change and was incapable of responding to market demands. The policy process was, in fact, characterised by ad hoc, incremental decision-making.
III: DISEQUILIBRIUM WITHIN THE POLICY-MAKING ENVIRONMENT

The growth of coal exports created not only disequilibrium in the export transport networks but also created pressures and disequilibrium within the policy-making environment. It led to tensions between and within government administrations and to the establishment of powerful factional forces including environmental and resident action groups, as well as the more traditional union groups. But the inability to meet infrastructure needs was also a product - an effect - of that environment. The inability of governments and the bureaucracy to reach agreement, for example, and the reluctance to permit the private sector to complete development was a product of conflicting interests within and between governments which inhibited the making and implementing of policies.

Inter-Governmental Conflict

Government had historically been involved in coal mining and export activities and derived considerable revenue from its various regulatory requirements. But government role in the operation was fragmented and responsibilities were divided between the State and Federal Governments and, to a lesser extent, Local Government as well. The exploitation of coal resources had traditionally and constitutionally been a State Government concern but
the Federal Government exercised both direct and indirect influences through its trade and export powers, and its control over foreign investment.

Throughout the 1960s and during the initial stages of the resources boom conflict between the various levels of government had not been an overt problem. The Federal Liberal/Country Party Coalition Government had encouraged the private development of mineral resources and had promoted a *laissez-faire* investment policy. This philosophy had been compatible with the aspirations of the NSW Liberal Government (1966-1976) which had encouraged infrastructure development by the private sector.

But during the late 1960s and the 1970s with the rapid development of the industry, the increasing domination of Australia's mineral resources by overseas capital and a political party seeking and in 1972 winning office and which opposed on ideological grounds the foreign takeover of Australia’s mineral industries, led to acute policy problems. Following the election of the Whitlam administration the Federal Labor Party Government, in an effort to assume greater responsibility in Australia’s port development programmes, opposed the private ownership of export related infrastructure and had introduced legislation, and a number of reforms, aimed at curbing foreign control and
investment in the mining sector. A conflict of interest thus arose during the Whitlam years in office between a State Liberal Government which supported, in principle, the private ownership of port facilities and a Federal Labor Government which opposed the policy and whose consent was required if the necessary funds for infrastructure development were borrowed from overseas sources.

Compromise: A Resolution for Intergovernment Tensions

The election into office of the Wran State Government also generated some internal policy problems. Though the Wran administration was a Labor Government, it was not dominated by traditional ALP forces but was, in fact, characterised by a complex system of power blocs which represented both the new conservative forces which had arisen within the Labor movement and a strong traditional left wing faction. The relatively conservative Wran administration, as a result, was a government of compromise and consensus among the diverse powerful ALP factions and invariably was unable to develop and implement long term strategic plans. Rather it was inclined toward short term objectives and ad hoc, incremental policy-making.
The complexity of the pluralistic policy environment demanded a compromise approach as a problem solving strategy. This promoted and generated conservative and incremental policy decisions. Invariably rather than any long term strategy planning being possible, the process was, at best, characterised by a series of knee jerk, *ad hoc* reactions to crises as these occurred.

Reshaping the Administrative Structure: *An Aid to Policy-Making?*

Under the Wran Government, aspects of the state's administrative machinery were reshaped and changes introduced establishing a number of formal and *ad hoc* policy structures. These were intended to enhance the policy process but, unfortunately, frequently had no power to put their recommendations into action.

The establishment by Cabinet in 1978, for example, of the Coal Export Strategy task force was to investigate aspects of exploration, mining, transportation, port facilities, employment and the environmental and social impacts of development. This exclusively state based committee was chaired by an official of the Department of Public Works (PWD) and its membership was drawn from State Government departments, statutory authorities and the Ministerial Advisory Unit (32). A separate
advisory committee was established which incorporated members of the task force and private sector representatives (33).

The task force, apart from identifying particular planning and investment needs in relation to infrastructure (34), also recommended the establishment of an ongoing tripartite consultative organisation on which the private sector and both governments would be represented. As a result the Coal Resources Development Committee (CRDC), under the chairmanship of the Department of Mineral Resources was subsequently established. On this committee members from twelve State Government departments and statutory authorities were appointed as well as a JCB member and three representatives each from the corporate sector and the trade union movement.

The major task of the CRDC was to advise the State Government on policies for the coordinated development of mine and coal related infrastructure requirements (35). Though it provided a focal point for government policy development, its recommendations were never endorsed by Cabinet nor were attempts made to grapple with the problem of policy coordination which had been identified by the Committee (36).
Under the Wran administration the appointment of Commissions of Inquiry also became increasingly widespread policy mechanisms, particularly in those instances when policy issues were steeped in controversy. The appointment of an independent commissioner appeared to be the most appropriate means of arriving at a seemingly politically neutral decision. But in some instances the appointment of an inquiry in itself was a political strategy as it had the effect of removing the issue under investigation from the political agenda. Carefully worded and narrow terms of reference restricted the scope of the investigation and the inquiry's outcomes became a supposedly independent and unbiased justification for what had been essentially a political decision.

The Coal Resources Development Committee (37) outlined a number of critical factors which would 'mitigate against planned development of the coal industry'. It indicated that the establishment of appropriate transportation systems would be critical if projected development was to be realised. The Committee further pointed out that unless the interests of all sectors of the community were considered, any planned development would become difficult.
Efforts to smooth the policy process and to incorporate community and regional interests were made by the Wran Government with the establishment of a number of regional advisory committees. The appointment of the Illawarra Region Port and Community Advisory Committee, for example, which included State Government, local and community representatives was developed specifically to allow local input into the policy process. But the lack of power or authority devolved to such bodies, their predominantly advisory nature and the long tradition of centralisation in state departments tended to ensure that regions were still largely dependent upon decisions made in Sydney (38).

CONCLUSION

The rapid changes in industry development during the 1970s placed enormous pressure on the transport networks. The existing infrastructure clearly impeded industry expansion and the planning of additional facilities was not carried out simultaneously with industry requirements. In addition, the policy-making environment was unable to handle the rapid changes and, in fact, inhibited development.
In Part II we will investigate a number of development proposals and the policy environment within which these were introduced.
REFERENCES AND FOOTNOTES


7. *Ibid*.


23. According to Joint Coal Board classification Ulan mines are in the Western district and have traditionally exported their coal through either Balmain or Port Kembla. Since the completion of the Sandy Hollow-Gulgong Line exports have been channelled through the port of Newcastle.


36. Personal Communication, Department of Mineral Resources NSW.
37. Coal Resources Development Committee (1983), *op.cit.*

PART II: TRANSPORT INFRASTRUCTURE
LOCATION AND THE MECHANICS
OF POLICY-MAKING:
CASE STUDY EVIDENCE
PART A: MARGINAL SEATS AND COAL LOADER LOCATION:

THE BOTANY BAY PROPOSAL

It is the negative externalities of transport infrastructure which prompt, under particular conditions, the politicisation of infrastructure location policy. For communities are particularly sensitive to those issues which are, or are perceived to be, detrimental to their immediate well-being; and when those communities are located in marginal electorates it is certain that a tenuous balance of power will prompt political attention, particularly if the political context is highly factionalised.

In 1974 a consortium of coal companies proposed the development of a coal loader as part of the new Botany Bay port and industrial complex. The facility was encouraged and approved by the sitting State Government (Liberal); and supported by the appropriate bureaucratic decision-making agencies (including the Maritime Services Board [MSB] and the State Pollution Control Commission [SPCC]). It had, too, considerable though not unanimous industry support.
But the facility development — and, indeed, the whole port development project — sparked intense resident and community-based opposition, its basis the real or perceived negative externalities of the project. The Australian Labor Party (ALP) in opposition and out of office for almost a decade at the state level but strongly supported, and in government, at the federal level, aligned itself to resident groups (and vice versa) and adopted a vehemently anti-development policy in its election platform. The decision-making process spanned a state election; and the port development project was executed within a collection of exceptionally electorally sensitive, marginal seats. In the event, the proposed coal loader in Botany Bay was abandoned. But in the south, in Port Kembla, plans were already well advanced for a second loader to serve Southern mines. Could it not, quite satisfactorily, serve both Western and Southern mines? Was it not an ideal, or at least politically rational, solution to the problem of coal loader provision? In June 1977 a loader at Port Kembla was approved by the State Government and was constructed in due course.

The decisions about coal loader provision in Botany Bay and in Port Kembla were highly politicised decisions. This chapter examines the nature and dynamics of this politicisation and though the
elements of the process differed somewhat in the two cases the locational decisions were essentially interdependent.

This chapter falls into two parts. Part A is concerned with industry developments of the late 1960's. The growth of export markets, global changes in customer demands, export constraints when Clutha's Coalcliff loader primarily for political reasons, failed to be realised and subsequent developments which led up to and surrounded the decision not to construct a coal loader in Botany Bay. Part B examines the consequences of that decision in the light of developments at Port Kembla.

I: CLUTHA AND BURRAGORANG VALLEY COAL: AN OFFSHORE LOADER AT COALCLIFF?

Between 1960 and 1970 raw coal production in NSW almost doubled - from 18 million tonnes to 35.8 million tonnes (Table 2.1) - and though there was significant expansion in the Southern and Hunter Valley fields, Clutha's Burrarorang Valley mines emerged as a major new concentration of production. From 1.4 million tonnes in 1960 production soared to almost 5 million tonnes in 1970, 2.6 million tonnes of which were exported, essentially to Japanese steel mills (1).
### TABLE 3.1: Coal Loader Capacity and Actual Throughput - Balmain and Port Kembla 1972-80 (million tonnes)

<table>
<thead>
<tr>
<th></th>
<th>Balmain Capacity</th>
<th>Balmain Throughput</th>
<th>Port Kembla *Capacity</th>
<th>Port Kembla Throughput</th>
</tr>
</thead>
<tbody>
<tr>
<td>1972</td>
<td>2.8</td>
<td>2.1</td>
<td>6.0</td>
<td>3.3</td>
</tr>
<tr>
<td>1974</td>
<td>2.8</td>
<td>1.8</td>
<td>6.0</td>
<td>3.6</td>
</tr>
<tr>
<td>1976</td>
<td>2.8</td>
<td>2.4</td>
<td>6.0</td>
<td>5.3</td>
</tr>
<tr>
<td>1978</td>
<td>2.8</td>
<td>2.3</td>
<td>7.0</td>
<td>6.3</td>
</tr>
<tr>
<td>1980</td>
<td>2.8</td>
<td>2.2</td>
<td>7.0</td>
<td>6.0</td>
</tr>
</tbody>
</table>

* Theoretical capacity only - actual capacity in the early 1970's was approximately 4.8m tonnes.

**Source:** Maritime Services Board of NSW, *Port Statistics*; and Joint Coal Board, *Black Coal in Australia 1983-84*, p.104.
Burragorang Valley to the Illawarra escarpment and an offshore coal loading terminal near Coalcliff (Figure 3.1). The 64 km privately operated railway would be constructed from Oakdale in the Burragorang Valley to a stockpile plant at Maddens Plains from where an enclosed conveyor system would transport the coal down the escarpment to a shiploader located approximately 1,200 metres offshore. The loader was designed to accommodate vessels ranging from 50,000 to 250,000 DWT and although it was to be financed and operated by Clutha, it would be under the control of the Maritime Services Board of NSW (MSB) (5). It was proposed that the facility would include a 610,000 tonnes capacity stockpile with a dust suppression system to minimise dust pollution.

For Clutha, the proposal had major benefits - it would remove the existing constraints of inadequate port capacity and enable projected expansion to proceed. Completion of the Coalcliff loader also meant that the Company would operate its own coal export outlet. In addition, the development of the loader and railway line would eliminate double handling of coal and simplify the complex existing mine to port transport system. Burragorang Valley coal exported through Balmain, for example, was transported by truck a distance of 33 km from the Wollondilly washery to Glenlee - a rail loading point at Campbelltown, and transported a distance of
FIGURE 3.1: Clutha's Proposed Offshore Coalcliff Coal Loader and Railway Line

Source: Joint Coal Board
Illawarra Mercury 6.11.1970
61 km by rail from the Glenlee washery to the Balmain loader. The balance of export coal was transported by truck a distance of 88 km to Port Kembla (Figure 2.7).

The NSW Liberal Government, under the leadership of Sir Robert Askin, with its market oriented and laissez-faire philosophies, saw the proposal as being beneficial for the state. The government, in fact, promoted a policy whereby the private sector was encouraged to own and operate coal loading facilities. Furthermore, the Minister for Mines (Fife) had indicated that the NSW Government expected to gain approximately $100 million over a 20 year period from its agreement with Clutha permitting the company to operate a private railway line and loader (6).

The JCB also supported the proposal and saw the development of the Clutha project as "providing an urgently needed facility at no expense to the state" (7). The Board, anticipating future vessel size of up to 200,000 DWT and recognising the inadequacy of the Newcastle, Balmain and Port Kembla loaders, which could accommodate vessels up to 58,000 DWT, had suggested that only an offshore coal loader would be capable of handling the larger vessels. The location of an offshore facility, according to the Board, could be Newcastle, Port Kembla,
Coalcliff or Botany Bay (8). Clutha had opted for the Coalcliff location, however. The Company considered that the Newcastle location was unsuitable because of distance and problems associated with transport. Port Kembla was also unsuitable because of access - there did not exist a railway link directly from the Burragorang Valley to Port Kembla and any rail traffic was diverted to the metropolitan area of Sydney and then along the Illawarra Line to Port Kembla. Road transport was the only viable alternative but meant that coal trucks travelled through the residential and commercial areas of Wollongong to the port.

Development of the facility and the construction of the railway line and loader required the sanction of a special Act of Parliament and the Clutha Development Proprietary Limited Agreement Act (Clutha Act) was passed on 9th December, 1970.

In the event, however, implementation of Clutha's plans did not eventuate, and in February 1972 the State Government indicated that the company would not proceed with the Coalcliff loader. Clutha announced that the reason for the abandonment of the project was the collapse of the Japanese market (9): but there were, however, other factors.
Elements of Opposition

There is no question that environmental issues, both real and imagined, underlay the politicisation of the Coalcliff loader decision-making process. The controversy, in fact, provided a vehicle for an opposition party, at the time the ALP, to mobilise a popular base and by aligning with the project's antagonists use the controversy to further the Party's electoral self interests.

Although opposition to Clutha's proposed development was fought initially on environmental grounds, the highly coordinated anti-Clutha campaign was politically motivated and was initiated and orchestrated by the ALP. The most vocal of opponent groups - the South Coast Organisation Opposing Pollution (SCOOP) - had been established and was, in fact, funded by the ALP (10). In the February 1971 State Government election the proposed Coalcliff loader and the repeal of the Clutha Act were prominent election issues in electorates likely to be affected if development was permitted to proceed and the ALP indicated that, if elected, it would stop Clutha's plans (11).

Although the Party had aligned itself with the interests of the residents and campaigned on the basis of preserving the environment and the repeal of the Clutha Act, the position of the ALP also
comprised an ideological element which had its roots in the environmental and ecological awareness movements of the 1960's; the current anti-American sentiment related to the Vietnam war; as well as a growing resentment throughout the 1960's, which was to become increasingly prevalent during the Whitlam years (1972-1975), against the foreign domination of Australia's mineral resources (12).

Pressure groups, most of which were affiliated with SCOOP and campaigning against the Coalcliff loader, came from local residents who opposed development of the facilities on the basis that the deleterious effect of a stockpile and the construction of a loader were unknown; that the stockpile and loader were potential polluters of air and sea; and that the stockpile and railway would possibly endanger Sydney's water supply (13).

Opposition also came from local and national environmental groups, the South Coast Conservation Society, the National Trust, the Social Responsibility in Science and the Ecology Action groups. The Council for Civil Liberties questioned the legality of the Clutha Act and the Clutha Committee was established in order to coordinate the activities of the numerous groups actively campaigning against the project (14).
The campaign also had considerable support from academics (15) presenting themselves as unbiased and "disinterested champions battling the cause of the common people" (16) or of extending their areas of research. The role of the 'academic politicians', however, was, as Blowers (17) suggests, frequently directed not by the imperatives of their research but by the exigencies of pursuing their own ideological purposes.

During the campaign trade unions aligned themselves with ALP policies, although union actions were generally also motivated by self interests. The railways unions, for example, such as the Australian Federated Union of Locomotive Enginemen (AFULE), the Australian Railways Union (ARU) and the Australasian Transport Officers Association (ATOA), condemned the construction of a privately owned railway system as it would threaten employment opportunities of their members. The Transport Workers' Union (TWU) also opposed development of the project. Clutha had moved increasing volumes of its coal to Port Kembla by trucks driven by members of the TWU. The Union believed that the construction of a railway from the Burragorang Valley to the new loader would necessarily threaten truck drivers' jobs.

The Miners' Federation was divided over the issue because, while recognising that NSW required more
coal outlets, the Federation had indicated that it supported the principle of state ownership of port facilities, and that a new loader should be built and operated by the government. But the Federation did not condemn the company’s plans because an increasing number of its members were employed in Burrarorang Valley export coal mines and who believed that their continued high earnings depended on the completion of Clutha’s plans (18).

At the height of the anti-Clutha campaign Hagan (19) indicates that a score of public meetings on the South Coast and the Southern Highlands, in the Blue Mountains and in Sydney, denounced the company and its works; the issue became the subject of questions, motions of urgency, and adjournment debates in state and federal parliaments; a dozen trade unions declared their opposition to the company’s plans, some hinted broadly at a black ban, and a decision of the NSW Labour Council lent them encouragement; four political parties made policy pronouncements on the Clutha Act, and three (the ALP, the Democratic Labour Party [DLP] and the Communist Party) made its repeal part of their platforms; non-party action groups were formed specifically to defeat the company’s plans; and the controversy for a matter of months at a time occupied prime space in newspapers and provided stock material for television and radio commentary.
The perceived negative externalities associated with Clutha's offshore loader development underlay the politicisation of infrastructure location policy. The controversy became the means by which an opposition party could mobilise grass-root support and saw in it the potential for embarrassing and discrediting the government, possibly bringing it down on a vote of no confidence. The Clutha debate also signified the emergence of environmental pressure groups and their role in the policy process, and the association of the ALP with these factions - an issue which would again arise and be instrumental in determining location policy in the Botany Bay coal loader controversy.

II: THE SEARCH FOR ALTERNATIVES: A NEW LOADER FOR PORT KEMBLA - OR FOR BOTANY BAY - OR BOTH?

Pressures on existing coal export infrastructure continued to mount. The Balmain coal loader, with a 2.8 million tonnes capacity was ill-equipped to handle increasing tonnages, and was restricted in its ability to handle vessels up to 40,000 DWT (20). Any expansion of the facility in order to accommodate larger Panamax size vessels was considered to be 'environmentally undesirable' and rebuilding was thought impractical (21).
At Port Kembla some work had been carried out during the early 1970's to upgrade the port, such as dredging and deepening of the harbour. Although this had enabled larger vessels to use the facility, it had not increased the loader capacity, which remained unchanged at approximately 4.8 million tonnes (22).

By 1974, too, major new investments in coking coal mining ventures were being undertaken and eleven new mines in the Southern and Southwestern regions were under construction or at various stages of the planning process (Table 3.2). Projected tonnages from the new mines were of the order of 14 million tonnes annually (23), most of it for export and it was anticipated that an additional 10 million tonnes would be shipped through Port Kembla annually (24).

Moreover, the 1973/74 oil crisis and the fourfold increase in oil prices led Japanese power generating companies to seek long term thermal coal contracts with Australian producers. This was quite a new emphasis for until the early 1970's, thermal coal had been exported on a very small scale only and often as a byproduct of soft coking coal. Now, however, it became economically viable to produce specifically for export purposes. It was anticipated therefore that coal exports from the Western fields, for example, would also escalate.
### TABLE 3.2: Proposed New Mines in Southern and Southwestern NSW, 1974

<table>
<thead>
<tr>
<th>Export Facility</th>
<th>Mine</th>
<th>Company</th>
<th>Status</th>
<th>Mode of Transport to Port</th>
<th>Production (million tonnes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Port Kembla</td>
<td>Westcliff</td>
<td>Kembla Coal &amp; Coke</td>
<td>Under constn.</td>
<td>Road</td>
<td>1.8</td>
</tr>
<tr>
<td>Port Kembla</td>
<td>Northcliff</td>
<td>&quot;</td>
<td>Proposed</td>
<td>Rail</td>
<td>1.8</td>
</tr>
<tr>
<td>Port Kembla</td>
<td>Eastcliff</td>
<td>&quot;</td>
<td>Proposed</td>
<td>Rail</td>
<td>1.0</td>
</tr>
<tr>
<td>Port Kembla</td>
<td>West Bellambi</td>
<td>Bellambi Coal Co.</td>
<td>Proposed</td>
<td>Road</td>
<td>1.5</td>
</tr>
<tr>
<td>Port Kembla</td>
<td>Sutton Forest</td>
<td>&quot;</td>
<td>Exploration</td>
<td>Rail</td>
<td>1.0</td>
</tr>
<tr>
<td>Port Kembla</td>
<td>Moss Vale area</td>
<td>Austen &amp; Butta</td>
<td>Exploration</td>
<td>Rail</td>
<td>1.0</td>
</tr>
<tr>
<td>Port Kembla &amp; Botany Bay</td>
<td>Bargo</td>
<td>Bargo</td>
<td>Advanced</td>
<td>Rail</td>
<td>up to 2.0</td>
</tr>
<tr>
<td>Botany Bay</td>
<td>Collieries</td>
<td>&quot;</td>
<td>planning</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Botany Bay</td>
<td>Tahmoor</td>
<td>Clutha</td>
<td>Advanced constn.</td>
<td>Rail</td>
<td>up to 2.6</td>
</tr>
<tr>
<td>Botany Bay</td>
<td>Wedderburn</td>
<td>&quot;</td>
<td>Exploration</td>
<td>Unknown</td>
<td>-</td>
</tr>
<tr>
<td>AIS/Port Kembla</td>
<td>Towers</td>
<td>AIS</td>
<td>Under constn.</td>
<td>Road</td>
<td>1.0</td>
</tr>
<tr>
<td>AIS/Port Kembla</td>
<td>Cordeaux</td>
<td>&quot;</td>
<td>Under constn.</td>
<td>Road</td>
<td>1.0</td>
</tr>
</tbody>
</table>

But, as with Burragorang Valley growth, expansion of export from Western mines was also restricted by the capacity of the Balmain and Port Kembla loaders.

Concern about inadequate port capacity was widespread and there was considerable discussion about possible development options. The MSB, for example, had for some time been exploring the possibility of a coal loading facility as part of the expanding Botany Bay development. The Board, which had been formed in 1938 following the amalgamation of the State Navigation Department and the Sydney Harbour Trust, had the responsibility for the control and management of Sydney Harbour (25). Robinson (26) points out that the Board, realising the inadequacy of Port Jackson for the development of extensive bulk handling areas, and in view of the rapid increase in ship size, had sought and obtained by way of legislation in 1961, the jurisdiction over Botany Bay as a potential site for future port development. The Board proposed that Port Botany be developed as a major deep draft port suitable for container traffic and dry bulk handling operations. These plans had been approved by the NSW Government in March 1969 (Figure 3.2).

Robinson (27) further suggests that the Board had maintained a 'wait and see' stance and had consistently argued that the provision of facilities
FIGURE 3.2: Proposed Botany Bay Port Development

Source: Maritime Services Board of NSW
in the Bay would be in accordance with a planned programme based on an assessment of the priorities of need. But, in order to offset the government's large capital investment, it had considered that these could be recouped, in part, by the development of Botany Bay as a major coal loading port.

At the same time, however, the Department of Public Works (PWD), which had the responsibility of all other NSW ports, including of course Port Kembla, had undertaken formal investigations into the feasibility of the expansion of coal loading operations at Port Kembla. Thus, by the mid-1970's two proposals for coal loaders were current - the MSB was negotiating with a consortium of coal companies for the construction of the Botany Bay coal loader and the PWD was proceeding with plans to develop an offshore facility at Port Kembla.

Although the MSB and the PWD operated independently and with a degree of autonomy, it has been suggested (28) that competition existed between the two organisations to the extent that the MSB had made overt moves to downgrade the facilities at Port Kembla and concentrate on the development of Port Botany. This allegation is difficult, if not impossible, to substantiate, but it is clear that both instrumentalities had interests vested in their respective territories. They did, in fact, proceed
with the planning of port developments independently and some potential for competition was inherent. The MSB, in order to justify and recoup the capital funds it had invested in the Botany Bay project encouraged trade to be diverted to that port. The PWD, on the other hand, having the responsibility of developing Port Kembla was prompted into action in order to augment existing infrastructure and have additional capital funds invested in its territory for developmental works.

Corporate Responses to Loader Developments

Industry's initial response to the planning of two coal loaders, not surprisingly, was generally one of agreement. The two loaders were intended to serve different mining areas - the Port Kembla facility would continue to handle Southern coal while the Botany Bay loader would be the export outlet for Burragorang Valley and Western coal.

Projections for future coal exports were high - the JCB had predicted that by 1985 NSW would export between 30 and 40 million tonnes and that up to 22.2 million tonnes would be from the combined Southern, Southwestern and Western fields (29). If the Board's predictions were accurate, then the combined throughput capacity of the existing Balmain and Port Kembla facilities, and the first stages of both the
Botany Bay and Port Kembla offshore loaders, would be fully utilised.

In the event, however, the question of new investment in coal transport infrastructure generally, and in a new loader at Botany Bay, in particular, became thoroughly politicised and extraordinarily complex. It is to this decision-making process that we now turn.

III: CLUTHA, AUSTEN & BUTTA AND COALEX: A CONSORTIUM SOLUTION IN BOTANY BAY

A dual option – new coal loaders in Botany Bay and Port Kembla – was, of course, attractive to the industry for it recognised

(i) the locational adjacency of particular mines to particular export outlets and the fundamental importance of low freight costs associated with short hauls

(ii) route choice to minimise freight costs given problems of accessibility for some mines to port outlets, as well as

(iii) the severe capacity limitations of the existing Balmain and Port Kembla loaders.

For three major producers – Clutha, Austen & Butta and Coalex – there were distinct advantages of a
Botany Bay loader location and in April 1974 the three companies, acting as a consortium, began negotiations with the MSB for the construction of a privately-owned loader.

The companies had mining interests in the Western and Burragorang Valley fields (Figure 2.1) (Table 3.3). Much of the Burragorang Valley output continued to be for overseas markets and although Western production had previously been essentially for domestic purposes, increasing quantities would now also be destined for export. By 1975 the consortium companies were producing export tonnages exceeding 5 million tonnes but had indicated that they had firm contractual export commitments of approximately 7.3 million tonnes (Table 3.4). In addition, Coalex had indicated that it had contract options for a further possible 3 million tonnes a year by 1980 (30).

But any further mining expansion continued to be constrained by loader capacity. The JCB reported that NSW producers already had more export contracts than they could physically handle (31) and the companies envisaged that the problem of infrastructure constraints would be exacerbated as a spate of new mines (Table 3.5) in various stages of the planning process, became operational - it was
TABLE 3.3: Consortium Companies and Mine Production 1976/77-1985/86 (million tonnes)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Austen &amp; Butts</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Avon</td>
<td>1.0</td>
<td>.6</td>
<td>.7</td>
<td>.8</td>
</tr>
<tr>
<td>Yellow Rock</td>
<td>.9</td>
<td>.2</td>
<td>.1</td>
<td>.3</td>
</tr>
<tr>
<td>Hartley Main</td>
<td>.6</td>
<td>.7</td>
<td>.6</td>
<td>.6</td>
</tr>
<tr>
<td>Invincible</td>
<td>.5</td>
<td>.6</td>
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<tr>
<td>Coalex</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Lithgow Valley</td>
<td>.6</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<tr>
<td>Wallerawang</td>
<td>.8</td>
<td>.7</td>
<td>.8</td>
<td>-</td>
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<td>Hermitage</td>
<td>-</td>
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<td>.3</td>
<td>.2</td>
</tr>
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<td>Clarence*</td>
<td>-</td>
<td>-</td>
<td>1.8</td>
<td>1.6</td>
</tr>
<tr>
<td>Baal Bone</td>
<td>-</td>
<td>-</td>
<td>.1</td>
<td>.8</td>
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<td>Brimstone No.2</td>
<td>.8</td>
<td>.8</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Nattai North</td>
<td>.8</td>
<td>.8</td>
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<td>1.0</td>
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<tr>
<td>Nattai Bulli</td>
<td>.7</td>
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<td>.1</td>
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<tr>
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<td>.6</td>
<td>.4</td>
<td>.5</td>
<td>.3</td>
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<td>.4</td>
<td>.4</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Wollondilly</td>
<td>-</td>
<td>-</td>
<td>-</td>
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</tr>
<tr>
<td>Western Main</td>
<td></td>
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<td>Opencut</td>
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<td>Western Main</td>
<td>-</td>
<td>-</td>
<td>.3</td>
<td>.3</td>
</tr>
</tbody>
</table>

* Coalex and Clutha major shareholders.

Source: Joint Coal Board, Black Coal in Australia 1979-80 and 1985-86.
### TABLE 3.4: Contractual Commitments for Export Coal of Consortium Companies 1974-1980 (million tonnes)

<table>
<thead>
<tr>
<th>Year</th>
<th>Clutha</th>
<th>Austen &amp; Butta</th>
<th>Coalex</th>
<th>Total Tonnes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1974</td>
<td>3.0</td>
<td>.7</td>
<td>.6</td>
<td>4.3</td>
</tr>
<tr>
<td>1975</td>
<td>3.2</td>
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</tr>
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<td>3.4</td>
<td>1.0</td>
<td>1.7</td>
<td>6.1</td>
</tr>
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<td>1977</td>
<td>3.5</td>
<td>1.0</td>
<td>2.5</td>
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</tr>
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<td>1978</td>
<td>3.5</td>
<td>1.0</td>
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<td>1979</td>
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<td>1980</td>
<td>3.5</td>
<td>1.0</td>
<td>2.8</td>
<td>7.3</td>
</tr>
</tbody>
</table>

**Source:** State Pollution Control Commission, *Botany Bay Coal Loader Inquiry*, 28 November 1975, p.16.
<table>
<thead>
<tr>
<th>Year of Production</th>
<th>Ownership</th>
<th>Market</th>
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</thead>
<tbody>
<tr>
<td>1977</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hermitage</td>
<td>Coalex</td>
<td>Export &amp; domestic</td>
</tr>
<tr>
<td>Western Main Opencut</td>
<td>Clutha</td>
<td>Export &amp; domestic</td>
</tr>
<tr>
<td>1978</td>
<td></td>
<td></td>
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<td>Nattai North</td>
<td>Clutha</td>
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<td>Newcom</td>
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</tr>
<tr>
<td>1979</td>
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<td></td>
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<td>Tahmoor</td>
<td>Clutha</td>
<td>Export</td>
</tr>
<tr>
<td>1980</td>
<td></td>
<td></td>
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<tr>
<td>Clarence</td>
<td>Coalex/Clutha</td>
<td>Export &amp; domestic</td>
</tr>
<tr>
<td>Western Main</td>
<td>Clutha</td>
<td>Export &amp; domestic</td>
</tr>
<tr>
<td>1982</td>
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<tr>
<td>Ulan Opencut</td>
<td>Ulan Coal Mines Ltd.</td>
<td>Export &amp; domestic</td>
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<tr>
<td>1983</td>
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</tr>
<tr>
<td>Baal Bone</td>
<td>Coalex</td>
<td>Export &amp; domestic</td>
</tr>
</tbody>
</table>

**Source:** Joint Coal Board, *Black Coal in Australia, 1977-1985.*
anticipated that much of this additional production would be shipped through Port Botany.

The problem for the companies was not solely one of port capacity, however, but also of accessibility to existing loaders and of transport costs. Although transport costs from the Burragorang Valley as well as the Western mines to Botany Bay would be marginally higher than those to Balmain, they would be considerably less than those payable to Port Kembla for example. Thus in terms of accessibility, distance to port and transport costs, the Botany Bay location was the obvious choice.

The Botany Bay Coal Loader

It was proposed that the ship loading facility be constructed with an initial annual capacity of approximately 7 million tonnes but would eventually have a design throughput of 25 million tonnes. Stage 1 would comprise one linear shiploader of 4,500 tonnes per hour nominal capacity and would be capable of loading vessels up to 130,000 DWT. During Stage 2 the construction of a further linear shiploader would result in 9,000 tonnes per hour loading capacity. At this stage the facility could accommodate vessels up to 200,000 DWT and have an annual capacity of between 13 and 14 million tonnes. The shiploaders would be upgraded during Stage 3 to a nominal loading capacity of 10,000 tonnes per hour.
and the loader's annual capacity would then be approximately 25 million tonnes (32).

Although the loader development was to be funded by the consortium, it would nevertheless be a common user facility and be operated by the MSB. It was anticipated that the Botany Bay facility would replace the existing Balmain loader (33) and would handle coal primarily from the Western districts and the Burragorang Valley. As these areas had rail access to the port, it was anticipated that coal would be transported by rail only. In fact the loader was to be constructed on land leased from the MSB and a condition of the lease was that all coal would arrive by rail and there would be no road receiptal. In the initial design coal would be stored in silos - three would be constructed initially and more would be provided as exports increased. This feature was subsequently modified, however, and the coal silos were replaced by covered stockpiles. From the time coal was delivered to the port it would be handled in fully enclosed conveyors minimising both dust and noise pollution.

Government Response
The NSW Liberal Government's policy at the time encouraged the private ownership of port facilities and in February 1975, the Premier (Lewis) announced that Cabinet, on the recommendation of the Minister
for Public Works and Ports, had agreed in principle to the proposal, subject to the satisfactory outcome of an inquiry by the SPCC (34).

The Commission, in considering the case for the establishment of a coal loader at Botany Bay, assessed the evidence and based its recommendations on -

1. the effects of transporting coal from the collieries to Botany Bay;
2. the consequences that would derive from the existence and use of the proposed coal export facility at Botany Bay; and
3. the consequences of denying the use of Botany Bay as an export port for Western and Southwestern coal.

The Commission found that in view of the fact that the Botany Bay facility would have rail receival facilities only and that road haulage would be used only to transport coal from some mines to the washeries and rail sidings, the proposed export operation would not cause unacceptable road traffic on public roads (35).

In assessing the effect of coal train traffic on residents the Commission stated that the disbenefits of increased coal traffic were not exclusively a
feature of the Botany Bay location but that the increase in coal exports would increase the density of rail traffic generally, irrespective of the loader location (36). It was anticipated, however, that the PTC would replace the single track system and eliminate existing level crossings as well as introduce noise reduction features which would reduce noise levels considerably.

The Commission, in evaluating coal loader options, in the event that the Botany Bay site was rejected, indicated that the only alternative locations would be Balmain, Newcastle and Port Kembla. It found that the facility at Balmain was 'environmentally undesirable' and not practical to rebuild in order to service larger vessels (37). Port Kembla was considered to be a preferable location to Newcastle because of the shorter distances, as well as the possibility of constructing a direct railway line from the Burragorang Valley to the port (39).

The Commission indicated, however, that if Port Kembla was selected as an alternative location to Botany Bay without the provision of a direct railway line from the Southwestern and Western collieries to the port, export coal from both these areas would incur a cost penalty because of the additional distances — approximately 81 km. This would add an additional $1.40 per tonne for Western and $2.10
per tonne to the transport costs of Burragorang Valley coal (39). The Commission further pointed out that if a link from the Southwestern fields to Port Kembla only was completed, which would offer transport economies for Clutha’s Burragorang Valley mines, it would not change the disadvantageous position of the Western mines which, because of the lower export price for thermal coal, was particularly sensitive to transport costs (40).

In conclusion, the Commission indicated that “in view of the employment and general economic benefits it would confer on the community, and having regard for the environmental controls that would be placed on its construction and operation, the proposed coal export facilities at Botany Bay should not be rejected on environmental grounds” (41).

The MSB also supported the Botany Bay location pointing out the difficulties associated with other options. Future expansion at Balmain, for example, was not considered feasible because of the physical dimensions of the port (42). The Board argued that Newcastle was not a viable alternative for Burragorang Valley and Western coal and that freight rates favoured the Botany Bay location rather than Port Kembla.
The Board concluded that since "Sydney (was) the premier maritime city and port in Australia and with its large population and highly developed industrial and commercial activities, it must retain its ability to trade economically if the present standard of living of the community (was) to be maintained. This (could) only be achieved, as far as the shipping component (was) concerned, if the port facilities in the area (could) safely accommodate the large general cargo and bulk carrier ships which (were) becoming increasingly more prevalent on the international sea routes of the world". It was the Board's view that "modern port facilities with spacious and deep waterways for the large specialised ships to serve the needs of the Sydney region (could) only be provided in Botany Bay" (43).

The Challenge to Development and the Politicisation of Infrastructure Location

Development of the Botany Bay coal loader did not eventuate however. Rejection of the proposal was ostensibly based on economic and environmental grounds but was, in fact, a function of a policy process which had become highly politicised and in which major location policy decisions were made in order to appease the demands of residents in politically sensitive electorates, rather than to serve statewide needs.
This chapter argues that the ultimate decision not to proceed with the coal loader construction was a political one; that the success of the anti-Botany Bay lobby was primarily due to the fact that the residents' cause was adopted by an opposition party - in this case the ALP - as part of its 1976 election platform; and that the Party stance was essentially a vote catching strategy aimed at winning or retaining a number of marginal electorates (Cronulla, Georges River, Hurstville and Blue Mountains) which were considered crucial if the Party was to win office. Thus a major decision on infrastructure of state wide significance was made, not in order to meet economically rational criteria, and which would provide port facilities considered essential if expansion in the NSW coal export industry was to occur, but as part of a political strategy.

The Botany Bay scheme became the subject of an effective opposition campaign which Sanders (44) suggests was "the biggest and most concerted resident protest Sydney had ever seen". Opposition came from conservationists and resident action groups who demanded a Royal Commission into all proposed development around the Bay. More than seventy separate groups and progress associations amalgamated to form the Botany Bay Action Committee
Its concern was not only the potential environmental destruction and possible pollution problems, but also included issues such as the rezoning of land for industrial development, the construction of freeways, the increase of traffic as well as the possible reduction in property values.

The Total Environment Centre, Sydney's most politically active conservation/environmental lobby organisation, established the Botany Bay Planning and Protection Council to investigate the various development proposals affecting Botany Bay and its tributaries. The Council called for a moratorium and a comprehensive environmental and social impact inquiry covering all major developments in the area in which all community groups likely to be affected would participate. The Rockdale Council organised meetings with ten local municipalities in order to combine and coordinate their action campaign. In addition, the Nature Conservation Council, representing fifty conservation groups throughout the state and having about 5,000 members, voted to oppose the Government on the Botany Bay issue (46).

Sanders (47) indicates that "protestors seized on any issue which offered them some opportunity to attack the port proposal - the destruction of the large natural areas on the southern side of the Bay, the threat to local fishing and oyster industries,
super tanker oil spills and explosions, and massive traffic congestion problems". Some stories, he suggests, were "highly emotive and some were based only very tenuously on facts". A team of academics from the Australian National University, undertaking an environmental study of Botany Bay lent support to protestors' arguments which, as Sanders (48) suggests, "were able to gain considerable media coverage and with the support of a number of professional people working on related subjects, considerable credibility and respectability".

Marginal Seats and the Lithgow Connection

It has been suggested that the anti-Botany Bay development campaign was "the biggest and most concerted resident protest Sydney had ever seen" (49) and, in so far as it prevented ultimately the construction of the coal loader, it was effective. But why was it specifically so successful? What was the major reason or reasons which led to a capitulation by the decision-makers and the abandonment of the coal loader as part of the port development project? Admittedly the campaign was cohesive and well coordinated and received favourable media coverage. These criteria, however, are neither necessary nor sufficient conditions and in themselves are not a guarantee of success —
obviously not all cohesive and coordinated lobby
groups achieve their goals.

It has been suggested that opponents to the Botany
Bay development put forward a number of arguments
ranging from environmental and ecological concerns
to the possible decline in property values and
congestion in traffic. But the most powerful and
effective means of influencing policy-makers was in
their capacity as voters, and it was the promise of
electoral benefits, irrespective of future industry
implications, which determined the response to voter
demands by the opposition party and the outcome of
the debate.

Botany Bay residents, using the power of the ballot
box, initiated a campaign against the NSW Liberal
Government when approximately seventy local
organisations campaigned against the government in a
number of marginal seats. The Liberal Government,
surprisingly perhaps, appeared unperturbed by this
stand and some Liberal members of Parliament, Mead,
for example, the sitting member of Hurstville, went
so far as to dismiss the Botany Bay project as a
"non issue as far as his electorate (was) concerned"
and accused the Labor Party of trying to "whoop up a
political front on this issue". He indicated that
"to say that it would affect Hurstville was rubbish
- a distortion" (50).
The Labor Party, on the other hand, identified with concerned residents and lobby groups and pledged that, if elected, it would impose a moratorium on further development of Botany Bay and would reassess the entire port development programme (51). The ALP move was prompted by the fact that, if it was to win government, it was crucial to retain Labor held marginal seats around the Bay and to win the Liberal seat of Hurstville. In addition, it was considered essential for the Labor Party to win the Blue Mountains electorate, in which the Lithgow coal mining area was situated (52) (Figure 3.3). This seat was held by an Independent (Coates), who usually voted with the Liberal/Country Party coalition, and whose defeat could be termed a loss for the Liberal Government (53).

The Labor Party at this stage was in a rather ambivalent position concerning Botany Bay development however, as it had to gain the support of two seemingly incompatible factions. On the one hand, and as part of its election promise to win over residents in the vicinity of Botany Bay, the Party pledged that, if elected, it would impose a moratorium on the port development and reassess the scheme. At the same time, however, it had to gain the support of the Lithgow miners, whose prosperity and the future growth of the Western coal fields,

depended on the availability of an accessible export outlet for its coal.

The ALP, in dealing with the quandary, promised the Lithgow miners that they (the miners) "would not be disadvantaged if the Botany Bay loader was not constructed" (54). The Leader of the Opposition also assured the Lithgow residents and coal producers that whether or not the Botany Bay development proceeded, he would ensure that "they would have an export outlet for their coal" (55) and that he (Wran) "would look after them" (56).

IV: LEGITIMISING DEVELOPMENT: THE SIMBLIST INQUIRY

In accordance with its election promise the newly elected State Labor Government appointed S.H. Simblist QC to inquire into any further Botany Bay development. This action was to be the legitimising factor and provide the rational justification for what was essentially a political decision - the abandonment of the Botany Bay coal loader development. The appointment of an independent Commissioner in effect removed the controversy from the political arena and, by focussing on economic and environmental questions, neutralised a highly political decision.
The Simblist Inquiry found that while considerable variation existed in coal export projections, it accepted the proposition that the volumes of export coal would increase and that the realisation of this development depended on the availability of adequate port facilities. But he called into question the necessity for developing two coal loaders – the proposed Port Kembla offshore facility as well as the Botany Bay proposal – suggesting that this could, in fact, result in overcapacity (57). He found that though there did exist a need for increased port capacity for Western, Southwestern and Southern coal, "economic justification for the loader to be located at Botany Bay was not established" and that the "project should not proceed at this stage" (58).

Rather than develop Botany Bay as a coal loading port, Simblist recommended a number of alternatives – these included the development of the Port Kembla offshore loader. Access to the Port Kembla location for both the Burragorang Valley and Western producers could be provided by the construction of a railway line from Douglas Park to Port Kembla or alternately that the Moss Vale Line be upgraded, or both. The higher rail transport charges in that event, Simblist indicated, could be rationalised if an overall energy policy was established and could be offset by lower port charges (59).
In addition, contrary to the recommendations of the SPCC and the MSB, Simblist indicated that the immediate expansion of the Western fields could proceed if the existing Balmain coal loader was upgraded. This could involve, for example, making available the land at the White Bay Power Station for further stockpile areas and rail unloading facilities. The transfer of the container operations from White Bay and the bulk chemical liquids discharge operations from No. 2 berth Balmain to Botany Bay would permit the redevelopment of No. 1 and No. 3 Berths and relieve the access problem to the loader” (60).

The Legitimising Process

The Simblist Inquiry vindicated the Wran government stance and provided, ostensibly at least, an objective and rational justification for what had been essentially a political decision.

But the appointment of the Inquiry in itself was a political strategy and occurred not because of the degree of difficulty, but the amount of controversy and political sensitivity surrounding the problem. Politicians did not want to be seen responsible for the making of an ill advised or possibly a wrong policy decision with statewide ramifications and,
consequently, the onus was removed from the political arena and was placed with a seemingly independent and objective Commissioner.

In any event, it is argued that the mechanism of a public inquiry in itself is frequently inappropriate for major development projects. The essential questions, Allison (61) points out, generally concern whether project X will or will not be developed and alternatives are not fully considered. In those instances orthodox and established interests are overrepresented and judgments made based on only a narrow range of factors.

Certainly, there were a number of relevant, and indeed crucial issues, which were not addressed by the Commissioner. Simblist recommended, for example, that the Botany Bay coal loader should not proceed and made a number of suggestions which could provide alternative solutions, but failed to include detailed discussions on comparative costs, for example. In addition, although he did make a number of suggestions on rail lines which would link the Southwestern and Western fields with Port Kembla, this was without any consideration of their technical feasibility and economic viability.

When discussing the consortium’s argument that the development of new mining ventures depended on the
completion of the Botany Bay loader as additional transport costs could not be borne by the companies, Simblist indicated that the Inquiry was unable to consider this issue as "evidence of profitability of operations would have been essential" (62) and that "such an analysis was not presented to the Inquiry" (63).

There was, in fact, considerable inconsistency in Simblist’s position. He indicated, for example, that the rejection of the Botany Bay location was based on economic grounds stating that "economic justification for the coal loader was not established" (64) and that those "economic grounds (were) based substantially upon transport costs" (65). He further indicated however, that he had been unable to ascertain from the PTC the actual rail freights, stating that "the PTC (had) refused to reveal to the Inquiry the rates and the basis upon which such rates were calculated" (66). Nor did he incorporate into his discussion the question of coal loader and other port charges. In view of the fact then that Simblist did not have access to rail freight rates, and did not include a discussion on port charges, it poses the question on what aspects of transport costs did he, in fact, base his recommendation?
The events leading up to and following the Simblist Inquiry resulted in considerable lobbying by coal companies as to what facilities would be built and their locations. Plans had been proceeding for the development of both the Botany Bay and Port Kembla loaders. The NSW Combined Colliery Proprietors' Association (67) indicated quite clearly that the Port Kembla facility was seen as a complement of, and not in competition with, the Botany Bay loader.

Doubt began to emerge, however, over the viability of establishing two new coal loading facilities. Simblist (68) had pointed out the difficulties in accurately predicting future coal exports. Butlin (69) also had pointed out that, based on projections of probable increased coal consumption in Japan and Western Europe, Australian coal exports would be within the range of 68-85 million tonnes annually by the mid-1980's. NSW exports would account for approximately one half of the Australian total, possibly up to 1980, but after that time the competitive position of NSW would decline as large opencut developments in Queensland were completed. These would favour that state rather than NSW and Butlin argued that only those opencut fields in the Hunter Valley would be competitive with the Queensland developments and exports from all other
NSW areas would fall (70). When that occurred, and in the event that all NSW port development plans - including Botany Bay and Port Kembla - were completed, then NSW port capacity would be equal to the total projected export from the whole of Australia (71).

Within industry circles concern also began to be expressed about the possible surplus capacity and hence unprofitability if both loaders were completed. As a result, conflict began to emerge and lobbying occurred by companies over the eventual location of loading facilities. Southern interests had informed the Simblist Inquiry, for example, that "faced with proposals for two major coal loaders, such as those for Botany Bay and Port Kembla, only one would be financially viable (72) and only one should therefore be built. KCC had pointed out that in the event that Botany Bay was developed as well as Port Kembla, the reduction in throughput at each facility would increase the coal loading charges. KCC and The Bellambi Coal Co. had opposed the Botany Bay loader for this reason and had pushed for the early completion of the Port Kembla facility. KCC, in particular, anticipated difficulties over possible export outlets once the company's expanding mine development programme was completed. The Westcliff mine, for example, would be unable to export through Botany Bay - the mine
did not have access to rail and the Botany Bay coal loader would not be equipped with road receiveal facilities — the company had no option therefore but to use the Port Kembla facilities.

Clutha (73) on the other hand, had indicated that it "did not consider the proposed offshore loader at Port Kembla to be a feasible alternative to the proposed coal loader at Botany Bay". The company argued that the Port Kembla location was suitable for serving the South Coast district mines but that the twin installation of both Botany Bay and the Port Kembla loaders required adequate tonnages to justify the capital expenditure and, not surprisingly, Clutha with its extensive holdings in the Burragorang Valley and Western district, favoured the Botany Bay location.

Producers in the West also continued to push for the Botany Bay site. If this was abandoned and the Balmain loader ceased operation, as had earlier been indicated by the MSB (74), all Western and Southwestern coal would have to be exported through Port Kembla. This meant that Western coal would be transported through the metropolitan area of Sydney and along the Illawarra Line (Figure 2.6). Burragorang Valley coal would be either railed north through the metropolitan area and south along the Illawarra Line or alternately road hauled to Port
Kembla. The NSW Combined Colliery Proprietors’ Association pointed out that if this eventuated then the additional distances and charges for these companies would be considerable. The rail distance from Lithgow’s Hermitage mine to Botany Bay, for example, was 162 km while the distance to Port Kembla was 233 km. Similarly, the distance by rail from the Glenlee washery in the Burragorang Valley to Botany Bay was 67 km while the distance to Port Kembla was 143 km (Figure 2.7). The Association argued that coal freight rates to Port Kembla would consequently be markedly higher – coal from the Glenlee and Wollondilly washeries, for example, would incur an additional freight of $2.20/tonne and from Grose Valley an extra $1.65/tonne (Figure 3.4). The Association further argued that the Burragorang Valley mines, in particular, would be severely disadvantaged as rail freight rates to Port Kembla would be almost double those payable to either Botany Bay or Balmain (Figure 3.4).

The Association estimated that the additional freight costs incurred by Burragorang Valley and Western mines would, by 1985, exceed $8 million and $8.4 million respectively (75). In addition, the Association pointed out that the transport cost differential could not be offset by any benefits in loader operation charges, as had been suggested by Simblist, as the capital investment for both
FIGURE 3.4: Coal Freight Rates Western, Southwestern and Southern Mines to Loading Locations ($/tonne).

facilities would be similar (Table 3.6), and would "generate comparable repayment levies on port users" (76).

PART B: LOCATION BY DEFAULT: THE CONSEQUENCE OF NON-DEVELOPMENT IN BOTANY BAY

I: A NEW LOADER FOR PORT KEMBLA — AND BALMAIN TO BE UPGRADED

In June 1977 the NSW Premier (Wran) announced that State Cabinet had rejected the idea of building a coal loader in Botany Bay and had opted for one at Port Kembla. The Premier indicated that the "Port Kembla site had been chosen for although it was more costly than Botany Bay, in the long term it would be more beneficial to the state". He pointed out that "the cost of building the loader at Botany Bay would have been between $120 million and $130 million while the Port Kembla proposal would cost between $160 million and $180 million" (77).

The Premier indicated that -

"NSW must maintain its competitiveness if we are to continue to be a major coal exporter in the decades ahead. In recent years there has been a trend towards much larger coal ships and the Balmain coal loader, through which Western and Southwestern coal was primarily handled, has been increasingly less able to remain competitive because of its limitation to ship sizes of around 40,000 DWT. The proposed Port Kembla coal loader would
<table>
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<th>Botany Bay</th>
<th>Port Kembla Offshore</th>
<th>Port Kembla Onshore</th>
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<tbody>
<tr>
<td>Port Installation</td>
<td>$51.8</td>
<td>$49.7</td>
<td>$119.7</td>
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<td>Rail Extensions &amp; Upgrading</td>
<td>$14.0</td>
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<td>Rolling Stock</td>
<td>$19.4</td>
<td>$11.7</td>
<td>**</td>
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<td>-</td>
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<td>Planning &amp; Design</td>
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<td>**$85.2</td>
<td>**$70.1</td>
<td>**$250.6</td>
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1  1976 Estimated costs  
2  1980 Estimated costs  
*  Cost of road and rail upgrading  
** Not available

Source:  
have no such limitations. In addition the location of Port Kembla would offer the government additional flexibility because an inner harbour location would accommodate ships up to 100,000 DWT and an offshore location would handle ships up to 160,000 DWT. The final location would be determined by an evaluation undertaken jointly by the Maritime Services Board of NSW and the Department of Public Works" (78).

In addition he announced that the existing facility at Balmain would be upgraded to handle increasing export tonnages from the Western fields stating that

"Of several schemes considered the proposal adopted would permit the annual throughput potential of the facility to be increased from the present 2.8 million tonnes to 4 million tonnes.

The storage area capacity would be increased from the present 28,000 tonnes to 65,000 tonnes and vessels of up to 55,000 DWT would be able to use the upgraded loading facilities.

The work, to be completed in two years at an estimated cost of $5 million, was designed to make the best use of available potential at the White Bay site without necessitating interruption to coal exports while construction takes place.

Rail tracks serving the White Bay container terminal would be relocated to enable a new coal loading station to be provided thereby speeding up the handling of coal trains.

The existing No. 2 Berth Balmain would be demolished in order to permit the coal berth to accommodate larger size coal vessels" (79) (Figure 3.5).
FIGURE 3.5: Location of the Balmain Coal Loader

Source: Aerovision Photography
In addition, the Premier indicated that coal from the Western fields would be given preference at the Balmain coal loader and that when export coal from these fields exceeded the capacity of the Balmain facility, rationalised freight rates would be provided for the surplus exported through Port Kembla (80). The Premier further indicated that in order to facilitate the transport of coal from the Burragorang Valley mines to the new loader, government had decided that a rail line from Douglas Park to Port Kembla would be constructed.

It had not been decided, however, whether the new Port Kembla loader would be an offshore or onshore facility. As already noted the PWD, since 1974, had been investigating plans for the further expansion of Port Kembla and the Department at the time had investigated three basic options for the location of a new Port Kembla loader - the inner harbour, the outer harbour and an offshore site. The Department had indicated that maximum advantage would be obtained by integrating the new plant with the existing facility and the obvious location was therefore considered to be the inner harbour adjacent to the existing loader, replacing the tie-up berth. The inner harbour location would require extensive dredging, however, largely in rock, and the cost of providing a second loader on this site was assessed at $70 million (81).
Alternatively, an outer harbour location had been considered by the Department along the northern breakwater, at the site occupied by the oil berth. But this location would also require extensive dredging, as well as the relocation of the oil berth. In addition, the PWD had indicated that as the outer harbour operations were affected by weather conditions, it would have only a marginally greater availability than an offshore location. The cost of providing an outer harbour facility was assessed at $45 million (82).

Since the major cost associated with both options was dredging, the Department had undertaken a further investigation of the feasibility of an offshore loader north of the northern breakwater - a location which required little dredging. It had been proposed that an offshore berth could be located approximately 1,000 metres offshore and initially would accommodate vessels ranging between 40,000 and 150,000 DWT, and after further expansion could handle vessels up to 250,000 DWT.

An Onshore Location for the Port Kembla Loader

Though government approval for the offshore loader (Figure 3.6) had been obtained in October 1975, the Labor Minister for Public Works and Ports (Ferguson) announced in September 1977 that Government had
FIGURE 3.6: Proposed Port Kembla Offshore Loader

Source: Department of Public Works NSW
decided it would construct an onshore loader at Port Kembla rather than the planned offshore facility. He indicated that an inter-departmental committee comprising the MSB and PWD had opted for the onshore site rather than offshore on the basis of efficiency and costs (83). The PWD (84) had indicated that

"because of the moderately high wave conditions at the offshore site and the fact that these often arose with comparatively little warning, the consequences of damage to a facility so located made it imperative that the efficiency and reliability of all aspects of the proposal should be well established". The Department had further indicated that

detailed studies to determine the most practicable mooring system, the berth availability factor, the range of ship motions likely to be encountered and the operation aspects associated with ship handling, mooring and loading, would have to be undertaken before any further consideration could be given to the detailed design of an offshore facility".

Because of the high cost and the time needed to undertake them, these studies had not been carried out.

It was now proposed by the Minister that the loader would be constructed in the inner harbour on the multi-purpose berth site adjacent to the existing coal loader and that it would have an initial capacity of 12 to 15 million tonnes per annum with the potential of further expansion up to 20 million tonnes. The complex was designed for the transport
of coal by rail, although a road receival facility restricted to a maximum of 3.5 million tonnes annually (85) would be provided to handle coal from existing mines not serviced by rail. The new berth would consist of a loader with a nominal loading rate of 5,000 tonnes per hour and would be capable of accommodating vessels of 140,000-150,000 DWT, although these would be loaded to a maximum of 110,000 tonnes (86) (Figure 3.7).

It was proposed that stockpiles would have an initial capacity of 850,000 tonnes and, unlike those proposed for Botany Bay, would be open. This decision had been reached on the basis of costs and the subsequent user charges which would place a severe economic handicap on coal exported through an enclosed facility; as well as the current levels of technology which would make covered stockpiles a high risk venture, particularly from fire (87).

Corporate Responses to the Development of Port Kembla

Corporate reactions to the Government's decision, predictably, were diverse. South Coast producers welcomed the decision and KCC, for example, forecast that "it would boost the development of higher value coal in the South and Southwest" (88). Western industry sources, however, expressed grave reservations about its practicability; the estimated
FIGURE 3.7: Layout of the Port of Port Kembla
(1 New Coal Loader, 2 Old Coal Loader, 3 Grain Terminal)

Source: BHP Engineering 21.6.1986
construction time of 3\(\frac{1}{2}\) years; and the estimated cost of construction — assessed between $160 million and $180 million — was considered severely underestimated. Nevertheless, Western producers agreed to cooperate with the proposed Port Kembla scheme — the promise of rationalised freight rates (89) for any overspill of Western coal diverted from Balmain to Port Kembla had reduced the blow somewhat!

Clutha's Burragorang Valley mines, however, would be severely disadvantaged by Government's decision, particularly in view of the fact that the Western producers were to have priority loading at Balmain. Clutha's problems would be further exacerbated as the new Port Kembla facility would have limited road receiveal facilities and would be restricted to those mines which did not have access to rail. The Government decision, in effect, meant that most of Clutha's coal would be exported through Port Kembla but that until a direct rail link from the Burragorang Valley to Port Kembla was completed, coal would be transported from mine to port over the longer and costlier rail route (Figure 2.6).

Clutha's chairman indicated that the Port Kembla scheme would increase mining companies' costs by up to $6/tonne and that the real costs of Government's decision — including the expansion of Balmain, the
construction of the proposed railway line from the Burrarorang Valley to Port Kembla and the new Port Kembla loader would be in the vicinity of $310 million to $340 million (90).

Community Reactions

Unlike the responses evoked by Clutha's offshore and the Botany Bay coal loader proposals, the announcement by the State Government that a new loader would be built at Port Kembla was initially welcomed by most sections of the Illawarra community. The marked difference in Botany Bay and Port Kembla community attitudes was due to a variety of factors. Firstly, a number of mines which would be exporting through the new facility were located within the Illawarra region and, unlike the Botany Bay residents, the Illawarra population had a direct experience of coal mining. In addition, Port Kembla had already been operating as a coal loading port and unlike the Botany Bay experience, it would not constitute a new development, but merely an addition.

It is evident that the siting of the loader at Port Kembla was a sound political decision. Findlay (91) argues that the decision not to proceed with the coal loader at Botany Bay was one of political expediency which "secured the swinging vote for Labor in the marginal seats around the Bay". It is
also true, however, that the decision to locate the loader at Port Kembla was equally sound politically as it was unlikely to cause any electoral defeats in the Wollongong/Port Kembla Labor stronghold. Though the seat of Wollongong had been held by the Liberal Party as a marginal electorate in the latter part of the 1960's, and by an Independent (Arkell) since 1984, it was, throughout the 1970's, a very safe Labor seat (92). All other electorates which were situated within the area and which would possibly be affected by the Port Kembla development, with the exception of Wollondilly, were safe Labor seats and the Government decision therefore was not likely to pose an electoral threat.

It would also appear that the ALP's action was not only electorally sound, but that a power play between factions from within the Party ranks and local trade union and lobby groups was an influence of some importance in the final decision. The South Coast Labour Council (SCLC) for example, had lobbied against the Botany Bay location and had pressed for the loader site to be Port Kembla. It has been suggested, in fact, that a 'sweetheart deal' was made between the Council Secretary (Nixon) and the left wing faction of the ALP, notably the Minister for Public Works and Ports (Ferguson) (93). The Council secretary had argued, for example, that the coal loader should and would be built at Port
Kembla because it would be criminal to despoil Botany Bay further”. He had added that "we already have a coal loader here and provided the second one has built-in pollution controls the only difference it will make will be job opportunities during construction and operation”.

Concern over the environment was expressed, however, with the possible intensification of an already serious road transport problem in the event that the proposed Douglas Park-Port Kembla rail link was not constructed simultaneously with loader development. In addition, there was widespread demand for environmental protection, such as covered silos, as had been proposed for Botany Bay.

Community concern over transport to the loader was exacerbated with the postponement of the Douglas Park-Port Kembla railway link which prompted the imposition of a total ban by the SCLC on the loader’s construction. This, the Council’s secretary indicated, would not be lifted until certain conditions were met. These included "that the State Government provide a guarantee of alternate ship repair facilities; that the State Government guarantees that some parts for the coal loader would be manufactured by local firms; and that the State Government guarantees that all
associated rail facilities be completed before the loader commences operation" (94).

The political manoeuvring and power play which was to develop over coal transport to the Port Kembla loader will be discussed in detail in Chapter 5. Suffice it at this stage to point out that the ban was lifted with the government promise that road haulage of coal would be reduced to 2 million tonnes annually once the loader became operational.

On 22 November 1982 the Port Kembla coal loader - the product of a political strategy - was opened. Unfortunately, critical decisions, such as a rail link from the Burragorang Valley to the port had not been implemented. Nor had any positive action been taken or completed which would effectively enable the restricted road delivery to the port to be introduced and enforced - in the year 1985/86 Clutha exported 1.9 million tonnes of Burragorang Valley coal - 1.4 million tonnes was road hauled to Port Kembla; South Bulli transported 1.2 million tonnes by road and KCC's Westcliff Colliery 2 million tonnes (Figure 3.8).
FIGURE 3.8: Coal Tonnages to Balmain and Port Kembla Loaders 1985/1986 (million tonnes) (KCC Kembla Coal & Coke Pty.Ltd., BCC The Bellambi Coal Company)

Source: Austen & Butta Ltd.
II: THE ECONOMIC CONSEQUENCES OF LOCATION BY DEFAULT

The decisions by government on loader locations, whilst being effectively politicised, were rationalised on economic grounds, relying heavily on Simblist's findings (95). Limited economic data are available, however, which investigate in detail the comparative costs of the Botany Bay proposal with those of the Port Kembla loader. This in itself, is not surprising when it is considered that Botany Bay was not planned to replace Port Kembla - the two facilities were to be developed simultaneously, by different government agencies and to serve different mining areas and clientele, and not as possible options if one or the other was aborted.

It was not until the planning of both facilities was well advanced and government approval for their construction had been obtained that coal companies, and others, began to question the economic viability of establishing two coal loaders, and some investigations were carried out on the possible costs to the user if both Botany Bay and Port Kembla were developed. A study undertaken by Clutha (96), for example, compared the costs of the existing Balmain and Port Kembla facilities with those of a number of options - the establishment of new loaders at Botany Bay and Port Kembla; the establishment of a new loader at Botany Bay and retaining the existing Port Kembla loader; or the
establishment of the Port Kembla offshore facility augmented by the existing Balmain loader. The study indicated that provided the projected throughputs were realistic, construction of both the Port Kembla and Botany Bay facilities would be viable economically but that "the twin installation required adequate tonnage to justify the capital investment" (97).

Webb's (98) economic assessment of the Port Kembla coal loader found that capital costs for both the Botany Bay and Port Kembla offshore facilities were similar. But following the abandonment of the Botany Bay location, and the decision to proceed only with the Port Kembla onshore facility which entailed extensive rail infrastructure upgrading, Webb (99) estimated that the eventual cost of Stage 1 would far exceed those for the Botany Bay location and would be in the vicinity of $250.6 million (Table 3.6).

This figure did not include the cost of constructing the railway link from the Burragorang Valley to Port Kembla - initially estimated to cost a further $160 million (100). Indeed, industry sources have assessed the total capital outlay in respect of the Port Kembla loader and associated railway developments to be in the vicinity of $361.67 million (101). To this must be added the costs of
upgrading the Balmain loader which was estimated by both government and the NSW Combined Colliery proprietors' Association to be in the vicinity of $5 million. Webb (102) has queried this figure, however, and has estimated that the actual costs of upgrading Balmain ranged between $10 million and $15 million.

In addition, though some discussion was carried out between government and industry concerning the possibility of consortium funding of the Port Kembla loader, this proposition was ultimately abandoned and financing of the facility, unlike that of Botany Bay, became the sole responsibility of the NSW Government.

CONCLUSION

The locational decision-making process for the construction of coal loaders in Botany Bay and Port Kembla — and, in the event, for construction at Port Kembla — was highly politicised.

For a local community the perceived and/or actual negative externalities of a coal loader in Botany Bay were a prompt to widespread resident reaction. This sensitivity was not lost on a political party in opposition (the ALP), out of office for almost a decade (though with the Party recently elected to
Federal Government) but with a State election imminent; on a party anxious to align itself with grass roots sensitivities, particularly on environmental issues; and on a party whose return from opposition to government was almost certainly dependent on electoral success in a number of marginal seats — three of which were located in the vicinity of Botany Bay!

In the event the marginal seats and government were won at the state election in May 1976; and an Inquiry, seen as an appropriate mechanism to 'sort out' the whole problem of Botany Bay development (and specifically the construction of the coal loader and the container terminals) as well as a means of meeting an electoral promise, was conducted. The Inquiry found, *inter alia*, that the coal loader should not proceed; that alternately a loader could possibly be built at Port Kembla; and that, in any case, one loader would be sufficient to handle all coal from Southern, Western and Burrarorang Valley mines.

Port Kembla had, as it were, won by default; but what were the implications of the decision?

By and large the Port Kembla/Wollongong community saw the loader decision as a positive one, essentially in terms of likely employment, economic
and regional development spinoffs. Certainly the SCLC, which had not been inactive in campaigning the left wing faction of the ALP to prevent the Botany Bay development, encouraged and welcomed the construction of a new loader.

The new State Government perceived itself to have acted decisively - and had, for the most part, placated its constituents. But in so doing it had also committed itself to

i. the more expensive of the two loader options, not only in terms of the actual capital costs of the Port Kembla loader vis à vis that at Botany Bay, but also because the government itself would be committed to funding the new loader;

ii. significant capital investments required for new rail (the proposed Douglas Park-Port Kembla Line) and/or rail upgrading (Moss Vale and the Illawarra Lines);

iii. a large programme of road upgrading and the development of adequate road links;

iv. capital investment to upgrade the operations of the Balmain loader; and
v. considerable levels of subsidy to the Western coal producers under a promise to ensure that the freight cost differentials incurred between the cost of railing coal to the Balmain loader and south to Port Kembla would be met by the State Government (under the proposed Western Freight Equalisation Scheme - see Chapter 4.

And what of the industry itself, and of the mining companies involved?

For those companies mining the southern field and shipping through Port Kembla the prospects of a new, large and more efficient loader offered significant improvements over the existing facility. For the Western producers, given the promise of equalised rail freights between Balmain and Port Kembla, the new loader at Port Kembla introduced some flexibility and at least kept direct rail costs constant. But for the Burragorang Valley mines - and for Clutha - the construction of a new loader at Port Kembla failed to solve the very problems which had prompted Clutha to propose not only the Botany Bay loader but also, somewhat earlier, the Coalcliff loader - more direct, lower cost access to an efficient loader and more effective control over export shipments.
Effectively, the decision to construct the loader at Port Kembla committed the Burragorang Valley mines to road hauled export coal; and, in so doing, it led the State Government into a further round of transport infrastructure decision-making that continued to reflect political expediency rather than economic rationality.

In the following two chapters we look at the impact the loader location decision was to have on the mine to port transport system. And we investigate how a spate of further political decisions were to determine changes in freight flows to ports as well as transport modes.
REFERENCES AND FOOTNOTES


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24. Ibid.


28. Personal communication - Department of Public Works NSW.


30. State Pollution Control Commission NSW (1975), op.cit., p.16.


32. The Maritime Services Board of NSW (1976), Submission to Botany Bay Port and Environment Inquiry, Sydney, July, p.98.


35. State Pollution Control Commission NSW (1975), *op.cit.* p.5.


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83. Illawarra Mercury, 22.9.1977, p.3.


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96. Clutha Development Pty. Ltd. (1976), *op.cit.*


The Western Freight Equalisation Scheme emerged from a political promise - a quid pro quo for Western coal producers for the loss of easy access to a new coal loader in Botany Bay. It is characterised, therefore, by political expedience rather than inherent economic rationality, and its potential to 'solve' short term distribution and capacity problems in the export coal transport network, rather than to achieve longer term optimality.

The Scheme, essentially a freight subsidy, is, in effect, a regulatory mechanism for allocating the volumes of export coal along certain routes and to specified ports (Balmain and Port Kembla). Its continuation, however, is tenuous and recent proposed port disinvestment strategies have placed some doubt on the continued operation of the Scheme. This in turn may have further implications for spatial change.

This chapter explores problems associated with implementing electorally motivated decisions; and in particular the further complication which may result when electoral promises are acted upon by a highly sectoralised bureaucracy. Against this background we look at the introduction of the Western Freight
Equalisation Scheme and its implications for spatial change.

This chapter falls into three sections. The first notes some aspects of the problems associated with electorally oriented promises. The second section examines that process which converts an election promise into a policy and implements it, in particular in the context of the emergence of the Western Freight Equalisation Scheme. The third part is a brief postscript which looks at developments that have occurred since the introduction of the Scheme and their implications for further spatial change - this time in the form of port disinvestment strategies. Though this has arisen as a result of market forces and not as a direct result of the freight subsidy, it does have important implications for the continuation of the Scheme.

I: THE IMPLICATIONS OF ELECTORAL PROMISE-MAKING

'Pork Barrelling' has become a commonly practised election strategy and, as Painter (1) notes, "a quick look at election platforms shows that the stuff of state politics is a range of highly specific promises to carefully chosen minority groups in the community"; and, further, that the "detailed promises contained in party platforms at election times are veritable 'grab bags' of
opportunism". Political promises as ballot box strategies are not novel, and their political significance has been discussed by Painter (2), Hoare (3) and others. Our interest, however, concerns not pork-barrel politics per se but that process which transforms a political promise into a policy and the problems associated with the implementation of that policy. In particular, our interest lies in the explanation of spatial changes which occur as a consequence of election promises.

Problems certainly may occur when transforming political promises into government policies. This, in part, is a result of government structure. The division of government into elected representatives and appointed administrators, for example, may lead to fundamental problems in policy formulation and implementation processes. Ideological differences and conflicting motivations for pursuing particular policies frequently arise — the aims of elected representatives for example, are likely to be determined by short term, electoral demands while policy choices of government administration will be dictated by longer term, professional criteria. Conflict may arise as the broad policy outline is formulated, often on an ad hoc basis by politicians, while the detailed planning and execution of decisions are carried out by the bureaucracy. There is, therefore, an inherent potential for conflict.
Problems associated with the structure of government are further complicated as the bureaucracy is not an integrated and homogeneous force. Rather, as Peters (4) has argued, bureaucracies are generally highly fragmented and divided political institutions which are forced into competition because there rarely exists an effective means of central control. The fragmentation of the bureaucracy may present particular problems when policies are formulated and action taken. Tensions and conflicts frequently occur as a result of opposing views held by departments and other government agencies on the desirability, feasibility and possible impacts of a proposal. In fact, it suggests that any comprehensive and coordinated planning becomes very difficult to carry out if some part of a programme, in a sense, is lifted out of the overall planning scheme and is decided upon independently of related requirements and in order to meet other criteria - in this instance to serve electoral demands.

A consequence of the fragmentation of government structure, furthermore, is that policy programmes are divided into several highly specialised tasks, each carried out by a government instrumentality which may have considerable autonomy from a central coordinating body and from other, though possibly related, policy sectors. Thus in NSW, for example,
and as noted in earlier chapters, the responsibility for port development at present lies solely within the jurisdiction of the MSB while the SRA has the responsibility of raling coal to that port.

Electorally motivated promises certainly place further pressure on these bureaucratic structures as they are often compelled to adjust their operation and resource allocation to meet changes in government plans.

It is against this background that we now turn to examine more closely the problems which were associated with the implementation of the Western Freight Equalisation Scheme — a policy element conceived against the background of political promise-making in 1976 to the miners (and to the constituents) of the marginal Blue Mountains electorate.

II: RATIONALISATION OF TRANSPORT – A POLITICAL PROMISE

The Western Freight Equalisation Scheme is the product of a political promise, a quid pro quo for Western producers for the loss of easy access to a new coal loader in Botany Bay. Its origin can be traced back to both the 1976 NSW State Government
election and the ALP election platform and the subsequent Simblist Inquiry.

As already noted if the ALP was to win the 1976 election campaign it was considered crucial (5) for it to capture a number of marginal seats. These included some electorates adjacent to Botany Bay and the traditionally Independent held electorate of Blue Mountains which contained the coal mining fields of Lithgow. Further expansion of exports from Western mines was dependent on the availability of an accessible coal export facility, however. The ALP was therefore in somewhat of a quandary. On the one hand it was considered essential to win the support of the Lithgow miners who supported the Botany Bay coal loader project, and on the other, the ALP had adopted the abandonment of the Botany Bay development as part of its election platform.

In an effort to win over the Lithgow voters the then leader of the opposition (Wran) had assured the Lithgow residents and coal producers that whether or not the Botany Bay development proceeded, his new government would ensure that "they would have an export outlet for their coal" (6) and that he "would look after them".

In the event, of course, the ALP won the seat of Blue Mountains along with the other marginal seats
of Hurstville and Georges River around the shores of Botany Bay (Figure 3.3), and the Wran Labor Government took office in 1976. Within a very short time the new government had appointed a Commission of Inquiry, under the direction of Mr. S. Simblist QC to find some resolution to the now highly politicised question of new port facilities, and particularly of a new coal loader in Botany Bay. And it was, in fact, in this Inquiry that the new Premier was to find the means by which he would 'look after' the newly won electorate of Blue Mountains and its constituents.

Simblist and the Strategy of Rationalisation of Transport Costs

Simblist, though recognising that there was a need for increased coal loading capacity in order to handle the export of coal from the Western, Southwestern and Southern fields, found that "economic justification for the loader to be located at Botany Bay was not established" and that the "project should not proceed at this stage" (7). He suggested, however, that the establishment of an overall energy and transport policy, and the investigation into alternate forms of transport should be expedited, which might lead to a number of options. These included, _inter alia_, the upgrading of the Balmain coal loader which would enable, in the short term, the immediate expansion of the
Western fields; and that a plan for the pooling of transport costs be introduced (8).

Simblist indicated that the "Inquiry had been asked to make a decision in favour of the proposed coal loader being built in Botany Bay on economic grounds" and that "those economic grounds were narrowly based i.e. substantially upon transport costs" (9). He suggested, however, that "rail charges (were) only one of a number of transport costs" and "any consideration of transport costs must take into account the cost of moving coal from pit head to rail siding, rail siding to coal loader, and coal loader to ship's hold" (10). It is apparent that Simblist believed that "the total cost (was) the important one" and implied that under an overall energy and rationalised transport policy, rail freight costs could be offset, for example, by lower coal loading costs. Moreover, he noted "that the PTC would charge an extra $1.15 per tonne to carry coal from Lithgow to Port Kembla, as compared with Botany Bay. The extra cost per tonne from Glenlee would be $1.72. These extra costs might be offset if the coal loader charges at Port Kembla were less than at Botany Bay" (11).

Simblist further recommended that the Port Kembla offshore loader be constructed and that "the Balmain coal loader could be upgraded to meet the short term
needs for the Western fields" (12). This was in direct contrast with the recommendations of the SPCC and the MSB which, in a submission to the Inquiry had indicated that "the Balmain coal loader could not and should not be extended because of (a) environmental factors; (b) the low stockpile capacity with no room for expansion; (c) the restriction on berth access; and that (d) the water depth prevented large size vessels from using the facility" (13).

Despite this, the Inquiry indicated that the land at the White Bay Power Station could be made available to provide increased stockpile capacity and upgraded rail unloading facilities. The transfer of the container operations from White Bay and the transfer of bulk chemical liquids discharge operations from No. 2 berth Balmain to Botany Bay would permit redevelopment of No. 1 and No. 3 berths and relieve the access problems (14).

Following the release of the Simblist Report discussion in Parliament raised the implications of the recommendations and it was moved that the Report be discussed as a matter of urgency (15). It was argued that

". . . the credibility of that Report must be questioned, particularly as it recommends the establishment of an open coal dump at Balmain in preference to a totally enclosed unloading and loading facility at Botany Bay. Decisions about
the future of this project have already delayed the provisions of thousands of new jobs. This matter is urgent because this delay has already jeopardized the signing of new contracts in respect of the export of coal, the extension of existing coal mines and the opening of new mines" (16).

Further, it was indicated that the future of the coal industry was in jeopardy and that ".. the people of the Blue Mountains and residents of Balmain, Wollongong and Port Kembla want to know when they will have some respite from large coal trucks rumbling through their districts .. the future of the coal industry is in jeopardy and because, when he was in Lithgow, the Premier said that there (would) be a future for the Lithgow coalfields" (17).

In response to these comments, the Premier indicated that there was 

".. a sensible recommendation that the transport system be rationalised and gave assurances to the miners of the Western coalfields that, first, there (would) be no interference with the coal export industry, and second, there (would) be no increase in the cost of transportation of coal from those coalfields" (18).

In the meantime, however, the Premier had announced that the Botany Bay loader would not proceed and that Port Kembla would be the location for the new loader. Concerning the upgrading of the Balmain coal loader the Premier indicated that the MSB and the PTC had investigated means whereby the loader could be upgraded and that
"... the proposal adopted would permit the annual throughput potential of the facility to be increased from the present 2.8 million tonnes to 4 million tonnes. The storage area capacity would be increased from the present 28,000 tonnes to 65,000 tonnes and vessels of up to 55,000 DWT would be able to use the upgraded loading facilities. The work, to be completed in two years at an estimated cost of $5 million, was designed to make the best use of available potential at the White Bay site without necessitating interruption to coal exports while construction was undertaken. Rail tracks serving the White Bay container Terminal would be relocated to enable a new coal loading station to be provided thereby speeding up the handling of coal trains. The existing No. 2 Berth Balmain would be demolished in order to permit the coal berth to accommodate larger size coal vessels" (19).

Mr. Wran further indicated that "coal from the Western fields would be given preference at the Balmain coal loader and when coal from these important fields exceeded the capacity of the facility, rationalised freight rates would be provided to enable it to be exported through Port Kembla" (20).

A rationalised transport system or rationalised freight rates? Clearly, the Premier saw the latter option as the appropriate one and in further discussions clarified the position -

"On the specific question of freight rates I would say at this point, that the government's decision clearly took into account the importance of rate rationalisation to maintain Western coal export viability through Port Kembla notwithstanding the fact that the
government is also looking at Balmain’s capacity to accept more coal in the immediate future.

I give you the firm assurance, therefore, that every effort will be made to accommodate Western coal at Balmain in the short term and that freight rates for such coal to the new Port Kembla coal loader will be rationalised so as not to discriminate against your export operations" (21).

In fact, 'rationalised freight rates' were to mean 'equalised freight rates', as the Premier noted in due course -

"The second matter . . . relates to the government's policy to provide rationalised freight costs for export coal from existing mines and existing projects in the Western field in the event of the port of shipment being at Port Kembla instead of Sydney. It is the government's intention that these Western coal producers will not be disadvantaged by such a change. For a number of years, this will involve an equalisation of railway freight charges in respect to Western coal as between delivery to Balmain and to Port Kembla" (22).

The immediate consequence of the Simblist inquiry and subsequent discussions were, therefore, not only the abandonment of the construction of a coal loader in Botany Bay but also the commitment of the government to the construction of a new loader at Port Kembla, the upgrading of the existing facility at Balmain and equalised freight rates for Western coal once the capacity of Balmain was exceeded and the overflow diverted to Port Kembla. The price of a political promise was clearly to be considerable.
1977 to 1983: Boom to Bust

In September 1977 the Minister for Public Works and Ports announced that the State Government would build an onshore coal loader at Port Kembla rather than the planned offshore facility. Pressure on the port system continued to increase, however, and it seemed clear that by the 1982 completion date for the new facility the existing system would be under extreme pressure.

Production in the West, which was exclusively for thermal purposes, had doubled in the period between 1978 and 1982, from 4 million to 8.1 million tonnes in 1982-83. After the second oil shock it was anticipated that overseas demand would continue to increase and in order to cater for this growth, expansion of existing mines and new ventures were either in the planning stages or under construction. These included Clarence Colliery which would produce 1.7 million tonnes in 1981; Baal Bone which would have a production of approximately 500,000 tonnes in 1983 and Ulan opencut with a production of 1.4 million tonnes in 1982. Ulan export coal was at the time also channelled through Balmain and Port Kembla, although since completion of the Ulan-Sandy Hollow Line, it has been exported through the Newcastle loaders.
Further expansion in the West continued to be constrained by existing coal loading capacity, at least until the Port Kembla loader was completed and the Balmain loader upgraded. The Southern and Western Coalfields Export Executive Committee indicated, for example, that —

"the limitations, unreliability and costs of obtaining coal supplies from congested ports, particularly in NSW, during 1978-1982 encouraged buyers and investors to foster new mine developments in other areas to meet increasing demand. Thus at the time market opportunities were available, Port Kembla shippers were unable to avail themselves of the opportunities, and in fact experienced a serious decline in their existing contracts due to disruptions at the port" (23).

Certainly, between 1976 and 1980 Balmain was operating at near capacity levels and Port Kembla was also handling high tonnages relative to capacity (Table 3.1). When export tonnages periodically did exceed the capacity of both facilities, the overflow was diverted to the port of Newcastle. The longer distances to Newcastle incurred considerably higher rail freight rates (Table 4.1), in some instances up to 60 percent higher than those to Balmain.

By 1982 the new Port Kembla loader had been completed and the Balmain facility upgraded, its capacity increased to 4.5 million tonnes. The modification had increased the stockpile capacity to
TABLE 4.1: Rail Freight Rates and Distances for Some Southern and Western Collieries to Port Facilities, January 1982

<table>
<thead>
<tr>
<th>Location</th>
<th>BALMAIN</th>
<th>PORT KEMBLA</th>
<th>NEWCASTLE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Freight Rate</td>
<td>Distance</td>
<td>Freight Rate</td>
</tr>
<tr>
<td>Lithgow Valley/Hermitage</td>
<td>10.64</td>
<td>156</td>
<td>13.33</td>
</tr>
<tr>
<td>Gross Valley</td>
<td>9.26</td>
<td>130</td>
<td>12.53</td>
</tr>
<tr>
<td>Glenlee</td>
<td>5.90</td>
<td>61</td>
<td>10.18</td>
</tr>
<tr>
<td>Gulgong</td>
<td>16.19</td>
<td>NA</td>
<td>17.50</td>
</tr>
<tr>
<td>Wallerawang</td>
<td>10.64</td>
<td>176</td>
<td>13.80</td>
</tr>
<tr>
<td>Coalcliff</td>
<td>5.90</td>
<td>66</td>
<td>3.11</td>
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Source: State Rail Authority.
65,000 tonnes and the shiploading rate to 1,250 tonnes per hour - two shiploaders were installed each with a 625 tonne capacity which could be operated concurrently. The maximum dimension of vessels which could use the facility was 230 metres (up to 260 metres could be considered depending on the size of vessels at adjoining wharves) but the 11.6 metres depth at the face of the wharf restricted the use of the berth to Panamax size vessels loading up to 60,000 tonnes (24). In the year 1982-83 the upgraded Balmain loader handled 4 million tonnes of coal (Table 4.2). In excess of 1 million tonnes of Western coal was diverted to the Port Kembla loader, however, but without the benefits of equalised freight rates. The political promise had not as yet been realised.

By 1983 the coal industry was in a state of decline - the anticipated 'boom' did not eventuate. A downturn in the world steel industry, especially in Japan and Australia, had led to a world wide oversupply of both coking and thermal coals (25).

With the exception of Ulan mines production in the West fell by approximately 20 percent in 1983, after having reached a peak in 1982 and in the Burragorang Valley export also declined. NSW coal companies, faced with increased competition from Queensland and overseas producers, as well as receiving lower
<table>
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<th>Balmain West</th>
<th>Balmain Total</th>
<th>Port Kembla West</th>
<th>Port Kembla Total</th>
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<td>1985-86</td>
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<tr>
<td>1986-87</td>
<td>2.1</td>
<td>2.9</td>
<td>2.5</td>
<td>9.0</td>
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**Source:** Joint Coal Board, *Black Coal in Australia 1982/83 - 1986/87.*
prices for coal, were under pressure to remain economically viable -

"South Africa and the United States, for example, were seeking increased market shares and were able to substantially undercut NSW coal prices. United States coking coal producers had already agreed to 1983 prices which were $12/tonne below prices prevailing in 1982, whilst earlier in the year, South African producers were quoting $28/tonne for thermal coal on the spot market" (26).

Congestion in NSW ports intensified the problem, and led to high demurrage costs - congestion at this stage was due largely to industrial unrest rather than port capacity. A submission to the Senate Standing Committee on Trade noted, for example, that

"In the first quarter of 1981 an average of 27 ships were queuing off ports to load coal, increasing to an average of 57 in the corresponding period in 1982. The demurrage paid would add about $5 per tonne to the landed cost of export coal" (27).

Mining companies, faced with increasing costs and fewer markets, began to exert pressure on government to reduce its charges and to implement the promised freight rate subsidy. The companies threatened they would reduce production and close mines if relief from high government charges was not forthcoming. The NSW Coal Association indicated that "statutory authority costs (had) been rising at such a rapid rate that the competitiveness of the industry (was) seriously threatened" (28). In order to remain viable the Association stated that "there must be a freeze on the level of charges at least at 1982
levels, with serious consideration given to reductions in these charges. Failure to accept this principle (would) inevitably lead to very significant loss of employment in the coal industry” (29). Ritchie (30) further called for changes in transport policies as “there was a very real danger that the growth of coal fields in the South and the West would be arbitrarily stopped because of transport policies. The end result would be an increase in unemployment”.

Competition for markets together with high government charges led to the belief that “the NSW coal industry was on the verge of collapse with many mines to close unless excessive rail freights were cut immediately” (31). While the NSW overall rail freight charges compared favourably with those of its major competitors when they were calculated on a per-tonne per-kilometre basis the actual charge was more than double that of Queensland rates and were several times those rates for South Africa, Canada and the United States (32). Port and coal loading charges which exceeded $5/tonne in both Port Kembla and Newcastle, also compared unfavourably with Queensland and overseas competitors (33).

The NSW Coal Association claimed that

“the State Rail Authority can and must immediately reduce export coal freight charges by 40 percent and accept a ceiling of $9/tonne in order to be competitive
with South Africa. If this short term measure was not taken, the Association believed that a large section of the coal mining industry would collapse" (34).

The Western Freight Equalisation Scheme - Part of a Government Plan

Finally in November 1983 the Premier, under sustained attack by the coal companies to have rail charges lowered, announced a government plan "designed to keep the coal industry viable, to help it over a difficult period, and to maintain current employment" (35). At an expected cost of $30 million a year the 'incentive package' included major reductions in, and sweeping changes to, coal freight rates. The concessions included the cancellation of the 1984 freight rate increase agreed to between the SRA and coal companies estimated at approximately 11 percent; a cut of 5 percent in current coal freight rates; and cost reductions for more efficient coal loading of trains. Moreover the Premier noted that "Western coal mines would benefit also by the establishment of an equalisation fund to bring about equalisation of the freight rates for Balmain and Port Kembla". The Western Freight Equalisation Scheme had finally emerged!

Essentially, however, the plan was to be a major assistance package to the industry and the Premier stressed that the concessions were "not in any way a
windfall for Japanese and other buyers of NSW coal but that the steps had been taken specifically and exclusively as an incentive for increased local productivity and greater employment opportunity” (36). He further indicated that the government “would expect coal companies to maintain employment as a direct result of the concessions” and that “it intended to monitor very closely the operation and effect of the measure on employment levels”.

Clutha’s Burraborang Valley mines, while receiving the general 5 percent freight reduction, were not however, granted equalised rates to Port Kembla. Although the freight rate differential was considerable - the rate from Glenlee to Balmain, for example, was $5.90/tonne while the rate to Port Kembla was $10.18/tonne - it appears that Clutha did not lobby government for equalised rates for its Burraborang Valley mines as a quid pro quo for the right to transport coal to Port Kembla by road. At the time less than 20 percent of Burraborang Valley coal was railed to Balmain, the balance was transported by road to Port Kembla. In any event, most Burraborang Valley mines did not have direct access to rail and coal destined for Balmain was transported by road to either Glenlee or Tahmoor and then by rail to Balmain. Because of the cost of double handling, it was considerably cheaper for the
company to transport direct to Port Kembla by road (37).

An essential feature of the freight rate package was that Western producers would forego the 5 percent overall freight rate reduction which would be directed into a Western Rail Freight Equalisation Fund established to offset the additional rail freight to Port Kembla. Industry sources indicated, however, that this "did not meet the principle of equalisation" and that "Western producers would have a 5 percent competitive disadvantage over shippers through Newcastle, in some cases to the same customer" (38).

The freight package became the subject of controversy and some obvious political pointscoring when the Liberal opposition described the measures as "too little too late" and advocated "an immediate 15 percent cut in freight rates in order to make NSW competitive - that is 15 percent on the current rates, not on the projected rates for next year" (39).

The reaction of the SRA and Treasury to the introduction of the Scheme differed. The SRA saw its task as transporting coal irrespective of its destination. But, because there was an economic advantage for it to transport the coal in larger
unit trains the longer distances to Port Kembla, it welcomed the introduction of the subsidy (which, in effect, meant a saving of between $4 and $3.50 per tonne). The assumption was, of course, that the differential was funded by Treasury! The Treasury, on the other hand, opposed the introduction of the subsidy, and indicated that a greater utilisation of the Balmain facility should be made, thereby reducing its financial burden, which in the first six months of the Scheme's operation totalled $3,747,066 (40). The MSB also opposed government policy and the introduction of the Scheme as it meant the Board had to upgrade the Balmain coal loader at a time when it was considering closing the facility down.

Balmain Versus Port Kembla: The Rationalisation of Port Capacity as a 'New' Policy Option?

One of the conditions of the freight subsidy was that throughput at the Balmain loader would be maintained at the 1983 level and that the facility would handle annually a minimum of 3.6 million tonnes. Thus a fundamental element in the Western Freight Equalisation Scheme was that of maintaining a 'balance' of coal flows so that both the Balmain and Port Kembla loaders continued to be utilised. Within the first six months of operation, however, problems concerning coal flows began to emerge,
suggesting that Balmain was being bypassed in favour of Port Kembla.

Coal throughput at Balmain for the year 1983-84 was 3.6 million tonnes compared with more than 4 million tonnes in the previous year. Throughput at Port Kembla rose from 7.8 million tonnes in 1983/84 to almost 9 million tonnes in 1984/85 (Table 4.2).

The Minister of Transport expressed concern that coal was being diverted from Balmain to Port Kembla and indicated that there "were a number of options available that involved financial adjustments to freight rates in proportion to the Balmain throughput". Before these measures were introduced, however, he suggested that "further efforts be made by the companies involved to achieve a self regulated solution" (41). When Balmain throughput declined further and was not expected to exceed 2.7 million tonnes in 1984 the Minister indicated that, as a self regulated solution had not been reached, other means of regulatory flows would be pursued. He proposed, therefore, that "each company be charged on a pro rata basis the standard freight rate to Port Kembla for tonnages equivalent to the Balmain 'shortfall' and that rebates and credits would be allowed for companies which exceeded their minimum tonnages" (42).
Changes in port throughput, however, was not part of a deliberate attempt to bypass Balmain and, in a sense, was beyond the control of the Western producers. A worldwide trend away from Panamax and smaller size vessels to large size vessels inevitably would favour Port Kembla as this port, unlike Balmain, was able to accommodate larger ships.

In addition, the Western producers had little, if any, incentive to use Port Kembla rather than Balmain, because of the higher loading charges and, in any event, as pointed out by the NSW Coal Association, use of port reflected the customer's choice of ship.

Clearly, changing patterns of market demand and new responses from coal exporters have undermined the efficiency of the Western Freight Equalisation Scheme as a regulatory mechanism and created tensions between government and exporters. They have exposed, too, the differing sectoral interests within the NSW Government bureaucracy. Thus, the Minister of Transport, for example, was determined that Balmain should not be underutilised, a view supported by State Treasury which suggested that industry should be coerced into greater utilisation of Balmain in order to reduce the financial burden of the freight subsidy. Conflicting views have
arisen within the MSB with a pro Balmain lobby arguing that throughput is below capacity levels because the facility is being bypassed in favour of Port Kembla. On the other hand, a Port Kembla lobby within the Board is promoting the downgrading and ultimate closure of Balmain which will lead to Port Kembla being the only outlet for the Western, Southwestern and Southern coal. This is seen to be especially attractive because it will increase tonnages through the port and thereby enable the reduction of the very considerable deficit.

The issue has, in fact, been important in highlighting one of the more basic problems of the MSB - that of maintaining two loaders, one at Port Kembla and the other at Balmain.

III: MARKET FORCES AND PORT DISINVESTMENT -
A POSTSCRIPT

The Port Kembla loader has operated, and continues to operate, well below its 14 million tonnes design capacity - in 1986-87, for example, when throughput was higher than at any time since operations began, it was 9 million tonnes (Table 4.2).

Industry sources widely believe that the facility is inefficient and a review of its operational
efficiency has indicated, *inter alia*, that problems were associated with road receival far in excess of its design capacity. This has led to the establishment of satellite stockpiles and consequent double handling, an operation which, it was suggested, had reduced the capacity of the loader to less than 10 million tonnes per annum (43).

A recent technical/financial review (44) also found that current problems resulted further from a number of engineering, design and operational practices and that "although the loader could handle the throughput of 10 to 10.2 million, difficulties would be experienced with meeting peak/surge demands resulting in high demurrage costs" (45). With some operational changes, however, it was suggested that "the present road receival facilities could handle 3.5 million tonnes and that the capacity would then be increased to 11 million tonnes but that the maximum capacity of 14 million tonnes could only be achieved by reducing the road receival component to 2 million tonnes" (46).

The MSB, having the responsibility of the Port Kembla facility, is under pressure from both government and industry for the loader to become efficient and cost effective. The construction of the facility was undertaken with foreign capital and when finance and loan repayments were negotiated the
coal market was buoyant and future growth was envisaged. Since construction has been completed and the new loader became operational, the anticipated throughput tonnage has not been achieved.

As a result, the Board is faced with high debt servicing demands and loan repayments totalling $203.4 million over the next decade (47). A joint MSB/Industry study indicated that the "projected MSB operating costs and finance charges under existing loan arrangements in 1985-86 (were) $6.19 per tonne, which was 32 percent higher than the current charge of $4.68" (48) – a deficit of $1.51 is thus incurred for every throughput tonne.

The MSB now considers that this deficit can be reduced and throughput at Port Kembla increased if the Balmain loader ceases operation. This would entail further spatial change as Port Kembla would then become the outlet for all Western, Southwestern and Southern coal.

The Balmain loader, it is argued, is an old facility and is restricted by the physical dimensions of the port. The 11.6 metres depth at the wharf limits the maximum draft of vessels which can be loaded at the berth and limits the size of vessels to Panamax size carriers which can load up to 60,000 tonnes of coal.
although investigations have been carried out, to suggest ways and means of accommodating partly loaded Cape size vessels. Further operational constraints are imposed by the rail receival and stockpile capacity which is limited to 65,000 tonnes and, as a result, ships are frequently loaded directly from rail. This means that rail operations are directly tied to shipping schedules and when coal is not available from the stockpile, the ship must wait for the train delivery. Rail receival constraints are further imposed because of two 3 hour embargo periods each day for commuter trains which have priority over freight traffic. In addition, insufficient space at the loader has prevented the construction of a balloon loop and limited train size to 22 wagons.

The physical layout of the port poses further constraints as navigational access to the wharf is restricted (Figure 3.5). The problem has been intensified in recent years since larger, Panamax size vessels have been used to transport grain. The proximity of the coal and grain loaders and the insufficient turning area has meant that a grain vessel may have to leave the terminal in order to allow a coal ship access to the wharf or enable it to leave its berth.
Before the introduction of equalised rail freight rates a major advantage of Balmain for Western exporters was one of location and lower coal loading rates. More recently, the lower loading charges and competitive sea freight rates are working in favour of Balmain. With a world surplus of shipping the economies of scale in using larger vessels are marginal, with the result that Panamax size vessels in Balmain are now competitive, cost wise, with Cape size vessels in Port Kembla.

For the MSB, therefore, a strategy of rationalisation of port capacity and port disinvestment - or, simply, the closure of Balmain - is an attractive option because it provides a means, at least in part, of dealing with a severe deficit problem. Operating losses at Port Kembla, based on 1984-85 throughput and the calculations of the joint MSB/Industry study (50,) are about $13.6 million annually. In addition a cost of $250,000 is incurred each year by the grain industry in moving vessels at the grain terminal at Balmain in order to allow access to the coal loader. There is, in fact, a strong feeling that the state does not need the Balmain loader and its closure could save a minimum of $8 million and a maximum of $14 million a year.

To what extent, then, will the MSB as a strong statutory authority with a legislative mandate to
plan and oversee the efficient operation of NSW ports, be able to sectoralise the decision-making and succeed in closing down its Balmain operations?

The strategy has, once again, evoked intra-governmental conflict and tension. The Ministry of Transport and the State Treasury oppose the move as they believe that industry should be coerced into greater utilisation of Balmain, thereby reducing the deficit incurred by the Western Freight Equalisation Scheme. In addition, closure of Balmain could result in further heavy expenditure from State funds for railway construction, such as completion of the Maldon-Dombarton and possibly the St. Mary's-Glenlee Line.

The prospect of Balmain closing has also been opposed by coal exporters and industry members have argued that - "... Balmain must be maintained as a coal loader, as the state cannot afford to lose either the capacity or the flexibility of two ports to service the Southern and Western region" (51).

The strategy poses a series of administrative problems but raises also a number of operational issues. It poses questions on whether or not Port Kembla can cope with all Western, Southwestern and Southern export tonnages if Balmain ceases operation. The MSB affirms it can, although this
has not been demonstrated. In addition, assuming that the SRA has the track capacity to handle the extra rail haulage to Port Kembla, does it have sufficient rolling stock?

It further poses questions of a policy nature and places in doubt the continued existence of the Western Freight Equalisation Scheme. If the Balmain loader is closed will the rail freight rates to Port Kembla once again revert to the higher freight charges because, government could argue, with the Balmain loader closed, there will no longer exist a basis for equalised freight rates. If this eventuates then it will once again threaten the economic viability and continued operation of the Western coal mines.

Finally, this chapter illustrates the spatial ramifications of political decision-making and government’s port development programme which led to the introduction of a rail freight subsidy to offset high transport charges. This policy may have further indirect spatial implications in the form of port investment/disinvestment strategies.

The chapter also highlights problems associated with implementing politically motivated policies, particularly when carried out by a highly factionalised and sectoralised bureaucracy.
The consequence of government’s loader location policy, we note, has been the allocation and determination of freight flows. In the next chapter we investigate how the port development programme has impacted on modal and network policies as well.
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CHAPTER 5: COAL ON RAIL: THE POLITICS OF MODAL SPLIT

PART A: MODAL SPLIT AND INFRASTRUCTURE PROVISION IN THE PORT KEMBLA EXPORT COAL NETWORK

The NSW State Government’s decision not to permit the development of the Botany Bay coal loader and to proceed instead with the development of a new facility at Port Kembla placed considerable pressure on the existing mine to port transport network and committed government to undertake extensive transport infrastructure changes.

Both the Western and Southwestern coal mining areas had direct rail access to Botany Bay and a longer and indirect rail link with Port Kembla. Opposition from Western producers to the mandatory use of the more costly transport route was, in a sense, placated with the promise of the Western Freight Equalisation Scheme (1). But for Clutha’s Burragarorang Valley export mines a more serious problem was to arise. Preference loading at the Balmain coal loader for Western producers and government’s restrictive road haulage policy meant that all Burragarorang Valley coal would be transported to the new loader by rail — but in this case without the benefits of equalised freight rates!
The decision underlined the fundamental mismatch between modal split and infrastructure provision policies that has so characterised the State Government's attempts to provide a cohesive transport plan for export coal movement in southern NSW over the last two decades or so.

This chapter takes up this theme and examines the structure and development of the Port Kembla-oriented road/rail feeder network within the context of policy divergence. It sets the development within a political context and examines the emergence of two essentially interdependent sets of transport policies - modal and network infrastructure - which became highly politicised and divergent. It argues that the failure to synchronise modal split and infrastructure policies was a consequence of bureaucratic structure and a politicised policy-making process.

The first section of the chapter traces the chronology of events and the circumstances which surrounded the changes in government transport policies. The second section examines the reasons for and consequences of policy divergence and the emergence of an intensely conflictual decision-making environment.
I: THE CHRONOLOGY OF DEVELOPMENT

The State Government's decision to develop Port Kembla as the export outlet for Western, Southwestern and Southern coal placed considerable pressure on existing mine to port infrastructure.

The existing coal transport network included the Main Western Line along which Western coal was transported to Balmain. This line was linked to the Illawarra Line and Port Kembla via a goods line between Lidcombe and Tempe (Figure 2.6). The main Southern Line was the line along which some Burragorang Valley coal was railed to Balmain - the balance of Burragorang Valley export coal was road hauled to Port Kembla. The Burragorang Valley mines also had a rather indirect and lengthy rail link (176 km) to the Port Kembla loader - along the Main Southern Line to Sydney, via a goods line at the Chullora Junction and south along the Illawarra Line to Port Kembla (Figure 2.6).

There also existed a railway line from the Tablelands to the coast - the Moss Vale-Unanderra Line - providing a link between the Main Southern and the Illawarra Lines. This line did not carry coal traffic, however, but was used for some freight haulage and a daily passenger service (Figure 2.6). In addition, AIS operated a privately owned railway line between O'Brien's Drift and the Port Kembla
steelworks. This line served several mines at the base of the escarpment and, in conjunction with O'Brien's Drift, all AIS owned upper escarpment mines as well (2) (Figure 5.1).

The bulk of coal exported through Port Kembla, however, was carried to the loader by road (Figure 5.1). In 1977, for example, Port Kembla exported 6.07 million tonnes of coal, of which 4.38 million tonnes were road hauled (3).

Since its election to office in 1976, the NSW Labor Government had adopted a policy which stipulated that, wherever practicable, coal would in the future be transported by rail. This policy was to have serious implications for a number of coal exporters, particularly in view of the fact that some mines did not have ready access to rail. Other mines did have rail access but involved long and indirect rail routes, greatly increasing haulage distances and transport costs when compared with the more direct road transport.

In the latter part of the 1970's a situation had arisen in which the State Government was committed to rail transport of coal and in order to carry out election promises undertook to implement a number of infrastructure changes. These were not completed, however! Thus, although government
FIGURE 5.1: Existing and Proposed Infrastructure to Port Kembla Coal Loader

Source: Joint Coal Board
Coal Export Strategy Study (1979)
retained its overt commitment to rail transport it failed to implement infrastructure development which would enable this commitment to be fulfilled thereby creating fundamental problems within the mine to port transport system.

New Rail Links or the Upgrading of Existing Infrastructure?

As part of its policy package to construct a coal loader at Port Kembla, government, in order to appease Southwestern miners and quell Illawarra concerns about the possible increase in road hauled coal traffic, announced that a new railway line from the Burragorang Valley to the port would be built.

The final location for the railway had not been determined but two options were considered.

(i) Maldon to Port Kembla: This line would branch from the Main Southern Line near Maldon bridging the Nepean River and F5 Freeway and traversing farmland and the Cordeaux catchment area for approximately 20 km. The line would enter a 13 km tunnel north of the Cordeaux dam wall emerging near Nebo Colliery from where it would run parallel to the AIS owned railway to Port Kembla (Figure 5.1). Total length of the line would be approximately 42 km and would have an annual coal carrying capacity of 18.9 million tonnes. Construction costs were estimated
at $109.3m. The rail distance along this route from Glenlee to Port Kembla was 61 km, while the corresponding distances along the existing indirect rail route was 143 km (4).

(ii) Douglas Park to Helensburgh: A second option for the location of the new railway was from a point north of Douglas Park where it would branch from the Main Southern Line, cross the Nepean River and F5 Freeway and south to Appin across the Georges River. It would proceed across the catchment areas to Maddens Plains and descend to Helensburgh passing through a 320m tunnel under the catchment area and a 1.35km tunnel under the Princes Highway and the F6 Freeway (Figure 5.1). At Helensburgh it would link into the Illawarra Line to Port Kembla. Total length would be approximately 46 km and construction costs were estimated at $60m (5). Rail distance along this route from Glenlee was 83 km compared with 143 km on existing rail infrastructure.

The two options were considered by government in conjunction with a proposed railway from the Western district which would link the Main Western and the Main Southern Lines. The proposed 39 km St. Marys-Glenlee Line would complement either the Maldon-Port Kembla or Douglas Park-Helensburgh routes and provide a direct connection to the Port Kembla loader for the Western producers, bypassing the
metropolitan area of Sydney. Construction costs of a single line with crossing loops were estimated at $46 million and would provide an annual coal carrying capacity exceeding 30 million tonnes (6) (Figure 5.1).

The construction of either the Maldon-Port Kembla or Douglas Park-Helensburgh Lines would provide a direct link from the Burragorang Valley to the coast and would eliminate road haulage to Port Kembla from most export mines west of the escarpment. As well as Burragorang Valley export coal the Douglas Park-Helensburgh route would cater for Westcliff and the proposed Midcliff and Northcliff mines while the Maldon-Port Kembla link had the advantage of providing for the proposed West Bellambi mine. The Douglas Park-Helensburgh Line had the disadvantage, however, that it fed trains onto the Illawarra Line north of the single track Scarborough tunnel. This meant that the rail capacity to the Port Kembla loader would be restricted by the tunnel.

In May 1978 the Minister for Transport (Cox) announced that the government had decided to postpone the construction of the new railway lines. Instead it was proposed that existing infrastructure would be upgraded (7). It was suggested that export coal from the Western district to Port Kembla would continue to be railed along the Western Line and
down the Illawarra Line, and that Clutha’s Burragorang Valley coal would be hauled down the Moss Vale-Unanderra Line (8).

Although traffic density along the Illawarra Line and the single track Scarborough tunnel restricted the coal carrying capacity to approximately 6.7 million tonnes annually (9) it was suggested that this could be increased to 12 million tonnes if larger trains were utilised (10).

Though the Moss Vale-Unanderra Line had not been used for coal haulage, the PTC estimated that the line did have an effective annual coal carrying capacity of 2 million tonnes utilising trains of 2,225 gross tonnes (11). In addition, the Commission believed the line could be upgraded further to carry 4.3 million. It was now proposed by government that the line capacity be increased to approximately 16 million tonnes by duplicating the track (12). Although the PTC indicated that the down grades - 1 in 30 in some sections - were 'below present minimum desirable standards' (13), it nevertheless recommended that duplication could be successfully completed.

The release of the Environmental Impact Statement (EIS) for the Port Kembla coal loader, however, resulted in further changes in government plans.
The Minister for Public Works and Ports (Ferguson) on the basis of the EIS findings, indicated that the existing road and rail transport network, based on 3.5 million tonnes road receival, could handle all coal traffic necessary to fulfil the first stage of the coal loader development. State Government, with this new evidence, decided that the existing infrastructure would suffice and that neither the new railway lines nor the proposed upgrading of existing infrastructure was considered necessary – it was now proposed that all coal with the exception of 3.5 million tonnes, would be railed along the Illawarra Line.

A Transmark study carried out on behalf of the PTC supported Government's assessment of the line's coal carrying potential and indicated that the existing rail system, with current maximum size trains of 1,840 tonnes gross, could carry 11.99 million tonnes annually (14). Rendel's Economics pointed out however, that although the Transmark assessment of track capacity was realistic and that in the long term there was adequate capacity for the movement of export coal on the Illawarra Line, there was likely to be a gap between what was theoretically possible, and what was likely in the short term. It was argued that the availability of rolling stock, track capacity during upgrading operations, an early decision on electrification, and the failure of a
firm government undertaking to provide funds for the necessary investments were major obstacles to government’s plans (15).

A government appointed task force vindicated the latest round of transport decisions and pointed out that the anticipated coal tonnages did not justify the construction of a new or upgrading of existing rail infrastructure and that the most economically viable strategy for the 1985 coal flows was along the Illawarra Line. It was suggested that the construction of a railway line from the Burrarorang Valley to Port Kembla could be a possible option for higher export tonnages associated with the development of Stage 2 of the loader, however (16).

Thus after embracing, at one time or another, a variety of differing network policies, the State Government decided that no new or upgraded facilities were required after all! The new Port Kembla coal loader had a design capacity of 15 million tonnes and it was suggested that the existing rail infrastructure could carry almost 12 million tonnes. In addition, 3.5 million tonnes of coal were to be transported by road – giving a combined annual coal carrying network of 15.5 million tonnes.
II: THE DIVERGENCE OF GOVERNMENT POLICIES: THE PROMISE OF A 2 MILLION TONNES RESTRICTION ON ROAD HAULED COAL

The announcement that neither a new line nor upgraded existing facilities were required to service Stage 1 of the loader created considerable controversy in the Illawarra region. Wollongong had already a serious road traffic problem and it was argued (17) that failure to implement the proposed rail network would intensify this. The SCLC consequently imposed a total ban on the construction of the coal loader - a ban which the Council secretary (Nixon) indicated would not be lifted until certain conditions (including a State Government guarantee that all rail facilities associated with the loader would be completed) were met (18).

In order to appease growing opposition to road haulage and concern about the adequacy or otherwise of existing railway infrastructure, the Minister for Public Works and Ports (Ferguson) promised that road haulage to the new loader would not be increased and would, in fact, not exceed 2 million tonnes annually (19).

This promise, which was ratified by government, together with the decision not to proceed with new or upgraded infrastructure developments, created a fundamental conflict in transport policies.
Government wanted to adhere to its modal policy and was committed to reducing road receival at the loader to 2 million tonnes, but failed to complete necessary network changes which would enable restricted road haulage to be realised without imposing prohibitive transport costs on coal exporters. In the event that the loader was to operate at design capacity levels, approximately 13 million tonnes of coal would now be transported annually along the Illawarra Line.

Government's restricted road haulage policy meant that only Westcliff, Avon and Yellow Rock collieries would be permitted to continue road haulage once the new loader became operational - ostensibly on the basis that these mines did not have access to rail. Clutha's Burragorang Valley coal would have to transfer to rail - not along a newly constructed railway line or the upgraded Moss Vale-Unanderra Line - but north along the Main Southern Line through the southern suburbs of Sydney and south along the Illawarra Line. The company anticipated that distances and freight charges of coal transported along this route would nearly double when compared with the more direct access to Port Kembla by road - comparative distances from the Wollondilly washery to Port Kembla by rail and road, for example, were 176 km and 88 km respectively (Figure 2.7). The additional freight charges would
place a considerable burden on the Burragorang Valley mines and the continued viability of some operations, as a result, was threatened.

South Bulli colliery would now also be required to transfer its coal to rail, though the company no longer had direct access to the Illawarra Line. KCC did have permission to continue road haulage of its Westcliff coal, but the company would nevertheless be affected by government's restricted road haulage policy. The company was planning further mining developments - Westcliff Extended and Midcliff and Northcliff collieries - and unless the Douglas Park-Helensburgh Line proceeded these would not have access to rail, nor would they be permitted to transport coal by road to Port Kembla. Thus, if KCC's planned expansions were to eventuate, then the company would have to provide an alternative to road haulage.

PART B: A CONFLICTUAL DECISION-MAKING ENVIRONMENT AND THE POLITICISATION OF POLICY ISSUES

I: THE STRUCTURE OF GOVERNMENT AND SECTORALISATION OF POLICY ISSUES

The mismatch of modal and network policies was, in part, a consequence of two factors - the State Government's 'coal on rail' policy and, having adopted a restricted road haulage policy, government failure to allocate resources which would enable the
completion of the necessary rail infrastructure. The responsibility for policy mismatch, however, lies not exclusively with the elected arm of government but is also a function of the government administrative structure. It is argued that political decisions in themselves may create fundamental problems of coordination, for example, and particularly when policies are implemented by a bureaucracy which may not share the goals and aspirations of its political masters. However, when that bureaucracy and its functions are fragmented between a number of government agencies and agreement cannot be reached on policy within that structure, then putting it into action becomes very difficult indeed.

The division of bureaucratic functions into discrete and relatively independent policy sectors has created a compartmentalised and fragmented government administration. Transport provision in particular is divided into specialised areas in which a number of key sectors individually and independently have the responsibility for some segment of the transport network. The MSB, as already noted, has the responsibility for the operation of ports, while the State Rail Authority (SRA) (the PTC successor) has the virtual monopoly over rail transport; the role of the DEP, on the other hand, is to ensure, inter alia, that transport
policies are undertaken in accordance with acceptable environmental standards and regulations.

Although sectoralisation in itself may not necessarily create problems, in the absence of an effective coordinating unit, the integration and coordination of a number of discrete policy sectors, each essentially in competition (for resources for example) and motivated to serve self interests, becomes rather difficult.

In the latter 1970’s a situation had, in fact, arisen in which government, for electorally motivated reasons, had committed itself to a number of transport policy changes. But problems arose when attempts were made to implement these policies and agreement could not be reached between the technical, bureaucratic and political arms of government. The inability to reach a compromise became an effective obstacle to the eventual completion of any network changes. The SRA (20), for example, the government agency which was to construct and operate rail facilities was unable to adopt an entrepreneurial role and initiate development. The Authority performed a technical function only and essentially accommodated government plans rather than adopt the role of an effective policy initiator. The SRA Chief Executive (David Hill) indicated that "the decision concerning
the mode of transport to get coal to Port Kembla was one for the government to make" but that "the railways could cope with all that government asked of it ..." (21).

The DEP, on the other hand, insisted that future coal haulage from the Southwest would be by rail only and that construction of the new railway proceed. The DEP would not permit any further mining development or expansion to be undertaken unless rail access was available.

Mine to port transport was of little concern to the MSB. It was the Board’s function to load coal irrespective of transport mode and a Board official indicated that 'if the coal was delivered to the port in buckets, the Board would load it' (22). The NSW Treasury, adopted yet another stance and was unwilling to allocate resources to enable completion of the railway line. It was considered that the capital outlay could not be recouped by coal traffic alone. Although negotiations were underway for the construction of a grain terminal at Port Kembla, it was anticipated that the railway would be almost exclusively captive to the coal industry and export grain would be hauled along the Moss Vale-Unanderra Line.
The Ministry of Transport having ostensibly a coordinating function displayed a rather ambivalent stance because, though supporting, in principle, the concept that coal should be transported by rail, it tacitly supported government's inaction on rail development. It has been suggested that the Ministry was of the opinion that as the Balmain coal loader was to be upgraded and would handle the bulk of Western coal, the projected export tonnages from the Burrarorang Valley did not justify the large capital outlay required to enable completion of a new railway line (23). This was somewhat surprising, however, particularly in view of the fact that although Balmain was being upgraded, its continued utilisation was on a temporary basis only and the facility would eventually be closed down. When that occurred all Western coal would be shipped through Port Kembla.

The PWD which had the responsibility for the development of the Port Kembla loader also displayed some rather contradictory policies. The Department promoted the philosophy that coal should be transported by rail wherever possible, and planning had proceeded with a 3.5 million tonnes road receival facility. But the extraordinary actions of the Minister (Ferguson) would confuse and complicate the transport issues considerably and widen the policy divergence. As Minister for Public Works,
Ferguson indicated that the existing rail infrastructure would suffice for Stage 1 of the loader and that no new or upgraded rail facilities were required (24). As Deputy Premier, however, his actions to placate the growing controversy on whether the existing rail network could handle 12 million tonnes of coal annually led him to a situation in which, rather than reassess existing rail capacity and/or implement alternate transport modes, he promised, perhaps somewhat rashly, that the maximum 3.5 million tonnes road haulage would be reduced further to 2 million tonnes annually. This promise, if carried out, would place greater pressure on the existing infrastructure network and widen the divergence between government transport policies.

The sectoralisation of administrative functions resulted in a fragmented and uncoordinated coal transport programme - the coal loading terminal was completed independent of necessary rail infrastructure. In addition, the conflicting priorities of the elected and administrative branches of government and the inability of the various sectors to reach agreement on infrastructure requirements, prevented any decisive action being taken.
II: THE POLITICISATION OF POLICY DIVERGENCE; CORPORATE, UNION, AND PRESSURE GROUP RESPONSES

Government's failure to carry out its proposed network policies led to a situation in which the onus for restricting road haulage was placed on coal exporting companies. Government had failed to carry out infrastructure developments which would enable coal to be transferred from road to rail — nevertheless, with the exception of Westcliff, Avon and Yellow Rock collieries, it would become illegal for other mines to transport coal by road. Companies which would be affected by restricted road haulage were Clutha, KCC and the Bellambi Coal Company. Though BHP was also operating mines west of the escarpment, its coal was transported by truck to O'Brien's Drift and along a private railway line to the washery at the Port Kembla steelworks.

As a result, companies affected by government's policy changes developed their own reactive strategies and a number of options were subsequently proposed which would either eliminate road haulage or remove coal trucks from public roads. With the exception of the Lend Lease and KCC overland conveyors, which were abandoned for technical and economic reasons, all other options became the subject of intense pressure group activity, created an intensely conflictual policy-making environment and decisions concerning transport modes and infrastructure location, once again became highly
politicised. The controversy over coal transport generated fundamentally two factions - those groups which, for economic reasons actively supported the continuation of road haulage and their opponents who exerted pressure for the proposed rail infrastructure to be implemented.

In the following section it is appropriate to look briefly at the transport options proposed, their historical context and the politicisation process which emerged.

Clutha Development Pty. Ltd. and Problems of Transporting Burragerang Valley Coal

Burragerang Valley export mines, as noted in the previous chapter, have historically experienced mine to port transport difficulties (25) and although Clutha had supported the concept of the Maldon-Port Kembla line, the company expressed concern pointing out that there would be insufficient volume to justify the capital outlay. In addition, the company had clearly indicated that if the line was constructed, it would have to be a State Government venture and would not be funded by the collieries using the facility, notably Clutha.

The failure by government to construct the railway link and its subsequent restricted road haulage policy and the mandatory transfer of Clutha coal to
rail along existing infrastructure meant that the company’s transport costs would increase markedly. Coal would have to be trucked to Glenlee – the only Burragerorang Valley washery which had access to rail – and then by rail along the Main Southern Line to the metropolitan area of Sydney and south along the Illawarra Line – in effect doubling the haulage distances (Figure 2.7). Coal from the Wollondilly washery, for example, would have to be road hauled to Glenlee (33 km) and thence 143 km by rail to Port Kembla – while the more direct route by road was 88 kms. Transport costs as a result would double – the bimodal transport network costs were approximately $14.50 per tonne compared with the road haulage charge of approximately $7 per tonne (26).

As the projected doubling of transport costs was considered prohibitive, the company gave support to a number of alternate transport options which would remove its coal off public roads and would avoid the increased costs imposed by the lengthy rail route.

The F51/2 - Heavy Freight Road: An Alternative Solution for Burragerorang Valley

By the early 1980s, the Burragerorang Valley mines were in a state of decline – raw coal production had fallen from 5.19 million tonnes in 1978 to 3.55
million tonnes in 1982 (27). Clutha had closed its Brimstone No. 2 and Valley No. 2 collieries and the Glenlee washery, and consequently 216 mine workers had been retrenched. In addition, the company was reviewing the jobs of 149 coal truck drivers and garage personnel. The company had large quantities of unsold coal at its pitheads which it was unable to move through the ports, partly because of a loss of markets but also because of the export quota system introduced by the JCB (28). The company envisaged that these events, together with the prospect of doubling its transport costs to the port would result in further decline in production and workforce (29) and had indicated that mine closures would occur unless some relief from the high bimodal transport costs was forthcoming.

The State Government did agree to give Clutha a 12% rail freight rebate for all Burrarorang Valley coal railed to Port Kembla during the first year of the new loader operation, and a 10% rebate during subsequent years until a cross escarpment transport system was completed. This offer was rejected by Clutha as the company was pursuing a reduction in rail freight rates rather than a rebate. The government rebate offer represented a per tonne saving of $1.74 in the first year and a $1.45 in subsequent years and was considered by the company to be unacceptable (30).
Coal transport and the mandatory transfer from road to rail became the subject of intense lobbying from miners and truck drivers employed in the Burragorang Valley. As an alternative to rail transport the Camden division of the NSW Road Transport Association suggested the development of a heavy freight road which would carry all Burragorang Valley coal to the port - the F5$^{1/2}$. It was proposed that a new road be constructed duplicating the Mt. Keira Road from Wilton to the top of the escarpment from where a freight corridor be constructed to the Port - the F5$^{1/2}$ (Figure 5.1). Construction of the freight road and corridor would enable the existing road from Picton to be used exclusively for coal and heavy freight traffic, bypassing the City of Wollongong.

The F5-1/2 had the overwhelming support of residents in Camden and the Burragorang Valley, the TWU and the Camden, Campbelltown and Wollondilly Councils.

At the time approximately 4.8 million tonnes of Burragorang Valley coal was being road hauled to Port Kembla. The road haulage of Clutha's Burragorang Valley coal provided jobs for approximately 300 truck drivers - about one-third of these were Clutha employees and the balance were owner drivers. It was anticipated that these jobs
would be eliminated once the transfer to rail was implemented.

Residents of the Burragorang Valley and surrounding areas believed that the "loss of the truck trade would be a crippling blow to the region's economy" (31). Concern was not restricted to the survival of the coal haulage jobs, however. It was believed that mine workers and coal companies would also be affected, since it was proposed that no new mines would be permitted to open west of the escarpment unless they were linked to rail. This meant that there was little chance of increasing coal exports in the Valley and it was speculated that retrenchments would occur among mine workers and that the company would possibly curtail production.

Clutha was in favour of the F5 1/2 proposal as was BHP - in fact the freight corridor was to be constructed on land owned by BHP. The cost of construction was estimated at $31 million (32) and its completion, together with the freight corridor, would eliminate all coal haulage down Mt. Ousley - the major road access route into Wollongong and Port Kembla. It had the support of the Bellambi Coal Company which was negotiating the transfer of its South Bulli pithead to West Bellambi - a move which would eliminate problems associated with the transfer of South Bulli coal to rail.
The Wollongong Council opposed its construction, however, on the basis that Council wanted coal trucks off all roads and for coal haulage to be carried out by rail (33). The Department of Main Roads (DMR) also argued against the F5-1/2 on the basis that it was "in direct conflict with the government's firm policy of maximising the use of rail" (34).

Government ultimately refused permission for the project to proceed. But pressure from Burragorang Valley residents and miners, reinforced by industrial action from the TWU whose members' jobs were threatened if road haulage was curtailed, continued and would ultimately be successful. In fact, while lobby groups were exerting pressure on government to continue road haulage of Burragorang Valley coal, some intense lobbying was also being carried out to prevent infrastructure development which would enable South Bulli coal to be transferred to rail. Both factions had the support of the TWU and it was the imposition of Union bans which ultimately led to government capitulation and the continued road haulage of Burragorang Valley and South Bulli coal.
Government's transport policy to restrict road haulage and to reduce the annual road receival at the new loader to 2 million tonnes also had some serious implications for the Bellambi Coal Company. In 1980 the company's South Bulli mine produced 1.7 million tonnes of coal all of which was road hauled either to local consumers or to the Port Kembla loader (35). In order for government to meet its policy commitments, however, all South Bulli coal would in the future have to be transported by rail. In earlier years of operation a private railway line had linked the mine with the Illawarra Line, but its use had been discontinued and the rail link had been removed. Since that time South Bulli coal had been trucked through the northern commercial and residential suburbs of Wollongong to Port Kembla.

In order to meet government's new transport regulations, which would remove South Bulli coal from public roads, it was proposed that a coal loading facility be constructed near Bellambi. A stockpile of 120,000 tonnes capacity would be established at the mine from where an underground conveyor system would transport coal to an overhead loading silo along the Illawarra Line (Figure 5.2).
FIGURE 5.2: The Location of the South Bulli Mine Conveyor and Bellambi Rail Loading Bin

Source: Department of Environment and Planning
The Company opposed the mandatory transfer of its export coal to rail. The cost of constructing the conveyor system and coal silo was estimated to be approximately $16 million (36) and it was estimated that this would increase transport costs to Port Kembla by approximately $5/tonne (37). In addition, the Company at the time was considering the relocation of the South Bulli pithead to West Bellambi, a site west of the escarpment, and it was reluctant to finalise major infrastructure changes for South Bulli until further planning for the possible relocation had been completed.

The construction of the conveyor, and in particular the overhead coal storage bin at Bellambi became the subject of intense lobbying among residents, a nearby clothing manufacturer, trade unions and a local Council representative. The Bellambi Coal Company found that there was some support for the proposal but considerable opposition - Figure 5.3 indicates the elements in the 'power play'.

In December 1981 the State Government approved the construction of the coal silo and rail loading facility. The DEP recommended that construction commence as soon as possible and indicated that unless a facility such as the one proposed was completed, it would not be possible for government to achieve its objective of reducing the road
FIGURE 5.3: Elements in the 'Power Play' Relating to the Proposed Establishment of the Bellambi Coal Bin and Conveyor

haulage to the Port Kembla loader (38). The Illawarra Region Port and Railway Community Advisory Committee (IRPRCAC), a government appointed committee representing local interests "strongly supported the moves by the government to (transfer) the haulage from Bellambi's South Bulli mine to Port Kembla by rail" (39).

Opposition arose from the Bellambi and Woonona residents, however, who initiated a public campaign on the basis that the pollution and noise generated with the construction and operation of the facility would have detrimental effects on their homes (40). The management of a clothing factory, King Gee, located adjacent to the proposed site demanded that government abandon the proposal as "any worsening of an already serious dust problem would ruin the company's operations". The company threatened that if development did proceed, it would possibly cause the closure of its existing premises, resulting in the loss of 300 jobs. The Clothing and Allied Trade Union, in support of its members employed in the factory, opposed the construction on the basis that the "coal dust would be a health hazard and would detract from their working conditions" (41).

The Wollongong City Council, on the other hand, with the exception of one Councillor, supported the development and in August 1981 the Council's
Environment Committee recommended that the proposal be approved. The only Council member to actively campaign against development was an Independent Alderman (Tobin), a real estate agent in Woonona who opposed the location of the coal bin as he believed property values would be seriously affected. It appears that Alderman Tobin, in fact, intensified public concern over the issue when he revealed to a local newspaper (obtaining full front page coverage) that "there were undercover plans to use the Bellambi facility as a major storage centre for the northern collieries and that six bins were planned instead of one" (42). The accuracy and authenticity of Alderman Tobin's revelation was never verified, however, and when challenged to divulge the source of his information, he stated that "he had heard whispers of the gigantic scale of the project but was sworn to secrecy" (43).

Controversy over the proposal was widespread and it became the subject of intense inter union conflict. It had the support of members of the railway unions who believed that the transfer to rail would increase employment opportunities for its members. The TWU on the other hand opposed the move as it would eliminate the jobs of its members engaged in carting coal to the port. Consequently, in December 1981 the Union placed a ban on the delivery of concrete, steel, fuel and other essential materials
to the silo location effectively preventing the construction of the facility.

The TWU secretary indicated that the only long term solution to the whole question of coal transport which would preserve jobs was the completion of the Northern Distributor — an alternate access road into Wollongong which would bypass the northern commercial and residential suburbs — and the F5 1/2 and the heavy freight corridor on top of the escarpment. The Union secretary had further indicated that "no work would proceed on the Bellambi bin proposal and conveyor until the freight road did proceed" (44).

The ARU and the AFULE threatened retaliatory action if the TWU ban "endangered the jobs and livelihood of its members". The AFULE demanded that government stand by its commitment of restricting road haulage to 2 million tonnes and threatened it would "take industrial action if there was any further threat by the TWU to coal traffic on the South Coast" (45).

The SCLC opposed the TWU action arguing that if South Bulli coal was not transferred to rail before the opening of the new loader, the jobs of 1100 miners would be in jeopardy because road haulage would not be permitted to continue and the mine would possibly be forced to cease production (46).
While the TWU was effectively preventing the construction of the facility, other unions were exerting pressure on government to commence the coal bin project. The maritime and railway unions, the Miners' Federation and the Federated Engine Drivers and Firemen Association (FEDFA) presented an ultimatum to the government that until the Bellambi project was commenced, there would be no manning arrangements made for the new coal loader.

The issue of coal transport to the Port Kembla loader and the construction of rail loading facilities for South Bulli mine became highly politicised. Government, on the one hand, was committed to removing coal from Illawarra roads but on the other, if it insisted that this policy be implemented then it would appear inevitable that some mines would cease production. This would be an unpopular move, particularly for a Labor Government in an environment in which unemployment was already on the increase.

Government Reneges: Road Haulage Tonnages Double

On 4 November 1982 the NSW Government capitulated to trade union and lobby group demands and the Premier (Wran) announced that in order to preserve jobs in the mining and road transport industries, road...
haulage to the Port Kembla loader would be doubled. This decision was part of a new policy which enabled the continued road haulage of Burragorang Valley coal to Port Kembla and the Bellambi Coal Co. could continue road haulage of its South Bulli coal pending the company's decision to relocate the pithead west of the escarpment (47).

It also meant that transport policy including infrastructure provision was once again effectively determined within a political framework.

Government had failed to complete infrastructure developments and had attempted, albeit unsuccessfully, to place the onus for restricting road haulage with the coal mining companies. The Bellambi Coal Co. had begun construction of its conveyor and loading system but the imposition of trade union bans had prevented its completion. A number of other transport options had also been investigated, such as the Lend Lease overland conveyor system and the KCC conveyor and stockpile facility at Maddens Plains. Both ventures had been abandoned for technical and economic reasons (48). Consequently, following prolonged pressure on government by pro road transport lobby groups, government had little option but to extend road haulage to the port.
The Maldon-Port Kembla Railway: An Election Strategy?

Since the completion of the new coal loader in November 1982, the divergence between modal and network policies has widened - government has retained its overt commitment to rail transport though increasing tonnages of export coal have arrived at the port by road (Table 5.1).

In September 1983 government once again announced that a railway line from the Burragorang Valley to Port Kembla would be constructed. It appears, however, that this move again was politically motivated and was specifically an election strategy.

Opposition to road haulage on environmental and safety grounds had escalated. The recession in global steel making had led to a downturn in coal exports and widespread retrenchments had occurred in the coal and steel making industries. The Premier announced once again, that government would construct a railway link from the Burragorang Valley to Port Kembla - the Maldon-Port Kembla Line. This move, as part of an election strategy, was to appease a growing anti-road lobby and would create employment opportunities. The Premier indicated that construction of the Maldon-Port Kembla line would directly employ 600 people and indirectly generate a further 1,500 jobs (49). He indicated
## TABLE 5.1: Mine to Port Transport System – Port Kembla 1982/83-1985/86 (million tonnes)

<table>
<thead>
<tr>
<th></th>
<th>Road</th>
<th>Rail</th>
<th>Total</th>
<th>% Road Haulage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1982-83</td>
<td>4.1</td>
<td>2.7</td>
<td>6.9</td>
<td>60.2</td>
</tr>
<tr>
<td>1983-84</td>
<td>4.7</td>
<td>3.0</td>
<td>7.8</td>
<td>61.0</td>
</tr>
<tr>
<td>1984-85</td>
<td>5.9</td>
<td>3.0</td>
<td>8.9</td>
<td>66.2</td>
</tr>
<tr>
<td>1985-86</td>
<td>5.1</td>
<td>2.5</td>
<td>7.6</td>
<td>66.5</td>
</tr>
</tbody>
</table>

**Source:** Joint Coal Board, *Black Coal in Australia, 1982-83, 1983-84, 1984-85, 1985-86.*
that the construction of the railway line would make Port Kembla attractive to shippers and that the long term benefits of the project included -

* diverting some road hauled export coal to rail
* diverting coal traffic from the Illawarra Line,
  and easing the environmental effects of coal freight and pressure on passenger train schedules (50).

It was now proposed that the railway would link the Main Southern Line and the Moss Vale-Unanderra Line between Maldon and Dombarton below the Illawarra escarpment. A single track line was proposed with four passing loops - at Maldon, Wilton, Cordeaux and Avon. The project comprised 9.5 km of newly constructed track between the Main Southern Line and Wilton and a further 25.7 km of track between Wilton and Dombarton. The railway would pass through a 3.9 km long tunnel and emerge near Dombarton on the Moss Vale-Unanderra Line. The existing Moss Vale-Unanderra-Port Kembla Line would be duplicated between the junction near the Avon tunnel and Port Kembla - a distance of approximately 15 km (51) (Figure 5.1).

In December 1983 work on the Maldon-Port Kembla Line commenced. Government anticipated that the
completion date would be 1986 and construction costs would be approximately $150m (52).

These latest developments coincided with the preparation for a State Government election and it is apparent that the NSW Labor Government was concerned about the outcome, particularly in the electorate of Wollongong. This seat had been held by Ramsay on behalf of the ALP since 1971 when he had defeated the sitting Liberal Member (Hough) on the preferential count (53). Since that time it had been a relatively safe Labor seat but as the sitting ALP Member was not contesting the ensuing election, concern was expressed within government circles that the seat might be lost to the Independent candidate, the popular Lord Mayor of Wollongong (Arkell) (54). In the 1981 State Government election Arkell had opposed Ramsay and, although unsuccessful in that attempt, had effectively reduced Ramsay's majority by 22% (55).

In June 1984, less than four months after the election, work on the railway was postponed and the Minister for Transport announced that "government did not have the funds to complete the rail link within three years" (56).

Although work on the project has been carried out it is questionable whether completion of the railway is
now a viable proposition, at least as a coal-only railway. As the proposed rail link from the Western to the Southern Lines — St. Mary's-Glenlee Line — did not eventuate, the Western producers would not have direct access to it. This means that the line will cater essentially for Burragorang Valley coal to Port Kembla which in 1985/86 was less than 2 million tonnes (57) — these tonnages will ensure that the cost of construction will never be recouped. In fact, shortly after the Greiner government came to office in NSW in 1988, completion of the Line was once again under threat. This time on the basis that there was insufficient traffic to justify its capital outlay.

CONCLUSION

The decision-making process concerning the Port Kembla oriented road/rail feeder network displayed all the characteristics of an incremental and highly politicised policy process.

This chapter suggests that inherent difficulties emerge when implementing government policies which are devised as ballot box strategies and which frequently are symbolic gestures only; and that conflicts of interests arise between the elected arms of government and administration and, indeed, within government administration itself.
Politicians as part of election strategies made promises which government administrators and those responsible for implementing public policy were unable or unwilling to finance.

In the case of the Port Kembla feeder network, this resulted in a failure to synchronise modal split and infrastructure policies.

Further obstacles to effective policy implementation were encountered as a result of inconsistencies within government ranks and a lack of consensus between the various policy sectors engaged in the transport of coal. Given the fragmentation of government administration and, in the absence of an effective coordinating mechanism, the integration of diverse policy sectors into one comprehensive, coordinated system was difficult, if not impossible; and the incremental nature of network policy which occurred reflects the fragmentation of government structure, its inability or reluctance to take major policy steps, and its vulnerability to pressure group demands.
REFERENCES AND FOOTNOTES


5. Ibid.

6. Ibid, p.70.


8. Ibid.

9. Ibid.


15. Rendel's Economics (1979), Rail Transport to Port Kembla Coal Loader, Sydney, September.


17. South Coast Labour Council; Chamber of Commerce; local resident action groups.


20. The State Rail Authority of NSW had succeeded The Public Transport Commission.


22. Personal communication Maritime Services Board of NSW.

23. Personal communication NSW Ministry of Transport.


26. Personal communication BP Coal Australia.

27. Joint Coal Board (1986), Black Coal in Australia, 1985-86, Sydney, p.27.

28. The Joint Coal Board, in order to relieve congestion in NSW ports, imposed an export quota system restricting coal exports.

29. Illawarra Mercury, 7.7.1983, p.3.

30. Personal communication BP Coal Australia.


37. Personal communication Austen & Butta Ltd.

39. Illawarra Region Port and Railway Community Advisory Committee, Minutes of Meeting, 3.5.1979, p.4.


44. Illawarra Mercury, 4.2.1982, p.15.

45. Illawarra Mercury, 2.4.1982, p.4.


50. Ibid.


57. Joint Coal Board (1986), op.cit., p.112.
In 1986 the port of Newcastle loaded 27.5 million tonnes of export coal for overseas markets - about two-thirds of its estimated potential capacity of 42 million tonnes, 70 percent of the State's tonnage and approximately 19 million tonnes more than at Port Kembla, the State's second major export point. But though the tonnage represented the largest single concentration of export coal in NSW, and one of the largest along Australia's east coast, it was handled not by one single loader but by three - the Kooragang Island loader, the Steelworks Channel facility and the Carrington Basin loader (10.2, 14.2 and 3.1 million tonnes respectively) - all within a 3 kilometre radius of each other and adjacent to the mouth of the Hunter River (Figure 6.1).

The loaders, commissioned over a period of almost two decades between 1967 and 1984, represent significantly different levels of technological and operational sophistication and therefore differ, not surprisingly, in almost every technical characteristic (Table 6.1). They differ, too, over a range of organisational characteristics.
FIGURE 6.1: The Location of Coal Loaders in the Port of Newcastle
1 Carrington Basin; 2 Steelworks Channel; 3 Kooragang Island
Source: BHP Engineering 19.2.1988
### TABLE 6.1: Selected Characteristics of the Coal Loaders, Port of Newcastle, 1986

<table>
<thead>
<tr>
<th></th>
<th>Carrington Basin</th>
<th>Steelworks Channel</th>
<th>Kooragang Island</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date of Commissioning</td>
<td>1967</td>
<td>1977</td>
<td>1984</td>
</tr>
<tr>
<td>Site Area (hectares)</td>
<td>8.5</td>
<td>40</td>
<td>200</td>
</tr>
<tr>
<td>Design Capacity (MTPA)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Stage 1</td>
<td>6</td>
<td>9.5</td>
<td>15***</td>
</tr>
<tr>
<td>- Stage 2</td>
<td>14</td>
<td>25***</td>
<td></td>
</tr>
<tr>
<td>- Stage 3</td>
<td>22</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>Stockpile Cap. (tonnes)</td>
<td>*</td>
<td>700,000</td>
<td>1.5m+</td>
</tr>
<tr>
<td>Stackers (tonnes per hour)</td>
<td>4 x 2500</td>
<td>4 x 6600</td>
<td></td>
</tr>
<tr>
<td>Reclaimers (tonnes per hour)</td>
<td>4 x 2500</td>
<td>2 x 8000</td>
<td></td>
</tr>
<tr>
<td>Shiploaders (tonnes per hour)</td>
<td>2 x 1000</td>
<td>3 x 2500</td>
<td>1 x 10500</td>
</tr>
<tr>
<td>Labour complement</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- S'pile/receival</td>
<td>-</td>
<td>207**</td>
<td>87</td>
</tr>
<tr>
<td>- Shiploaders</td>
<td>18/shift</td>
<td>operated by MSB</td>
<td></td>
</tr>
<tr>
<td>Ownership</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- S'pile/receival</td>
<td>-</td>
<td>industry consortium</td>
<td>industry/ government venture</td>
</tr>
<tr>
<td>facilities</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Shiploaders</td>
<td>MSB</td>
<td>by lease to MSB</td>
<td>KCL</td>
</tr>
</tbody>
</table>
### TABLE 6.1 (Cont.):

<table>
<thead>
<tr>
<th></th>
<th>Carrington Basin</th>
<th>Steelworks Channel</th>
<th>Kooragang Island</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major unions involved</td>
<td>WWF (Cranes Branch)</td>
<td>TWU, WWF (Cranes Branch)</td>
<td>WWF, AMWU, ETU, TWU, WWF (Cranes Branch)</td>
</tr>
<tr>
<td>Depth alongside berth (metres)</td>
<td>11.6</td>
<td>16.5</td>
<td>16.5</td>
</tr>
<tr>
<td>Maximum Vessel Capacity alongside (DWT)</td>
<td>55,000</td>
<td>110,000</td>
<td>150,000</td>
</tr>
<tr>
<td>Vessel beam (metres)</td>
<td>32.5</td>
<td>43</td>
<td>55</td>
</tr>
<tr>
<td>Vessel LOA (metres)</td>
<td>250</td>
<td>290</td>
<td>335</td>
</tr>
<tr>
<td>Total tonnage throughput 1986 (million tonnes)</td>
<td>3.1</td>
<td>14.2</td>
<td>10.2</td>
</tr>
</tbody>
</table>

* loaded from PWCS stockpile
** includes all PWCS employees
*** not completed

**Source:** Port Waratah Coal Services Limited, *Coal from Newcastle*, (undated); Personal communication, MSB, PWCS, KCL.
The Kooragang Island loader was commissioned in 1984 and represents state-of-the-art technology; the oldest, the Carrington Basin loader began operations in 1967; and the third, the Steelworks Channel loader was commissioned a decade later in 1977.

In terms of site area occupied the newest loader, covering 200 hectares, is more than 20 times the area of the oldest loader and 5 times that of the Channel loader. Design capacities vary between 15 million tonnes for the new loader to less than half that for the Carrington Basin loader, with a projected capacity of 50 million tonnes in the final stage of expansion of the Kooragang Island loader. Moreover, whilst the old loader is limited to serving ships of 55,000 DWT the new loader is able to handle vessels of 150,000 DWT and, later, vessels of 180,000 DWT. There are, too, significant differences in loading rates (10,500 tonnes per hour compared with 2,000 tonnes); in stockpile capacity; in the amount of labour operating the loaders; in the ability of the loaders to handle different coal types and grades and in numerous other operating parameters.

Nor is there any conformity in the structure of ownership of the three loaders. The Carrington Basin loader is a public facility owned by the MSB;
the PWCS facility which incorporates the Steelworks Channel loader is privately owned by a consortium of coal exporters and Japanese coal users; whilst the Kooragang Island loader is a private/public joint venture owned by mining companies, an industry consortium, Japanese interests and the MSB.

Clearly, this pattern of ownership underlines potentially fundamental differences in corporate and operating objectives, in priorities, in management organisation and efficiency. There are, too, further complexities in the operational organisation of the loaders. Coal receival and stockpiling activities and the actual shiploading operations, for example, are carried out by a number of organisations. Coal receival, stockpiling and blending operations for export through the Steelworks Channel loader are carried out by PWCS, whilst the associated wharfside conveyors and shiploaders are leased to and operated by the MSB. Kooragang Coal Ltd. operates the receival and stockpile operations at the Kooragang Island loader, as well as the shiploader, although the MSB provides the labour force which operates the actual shiploader and has the responsibility for its maintenance. At Carrington Basin, on the other hand, all coal loading activities are carried out by the MSB, although the now defunct stockpile area,
until its closure, was leased to and operated by PWCS.

The complexity of labour union organisations is not uncharacteristic of many sectors of Australian industry, but it is certainly a feature of the operations of the three loaders in the port of Newcastle. Employees at the Carrington Basin and Steelworks Channel loaders engaged in the actual shiploading operations are members of the Waterside Workers' Federation (Cranes Branch) (WWF - Cranes Branch) while those engaged in the PWCS receival and stockpile areas are covered by the Port Waratah Industrial Agreement, under the umbrella of the TWU. At the Kooragang Island loader personnel are represented by a number of unions, such as the WWF (Cranes Branch), the ETU, the Maritime Services Board of NSW Clerical and General Officers Association and the Australian Metal Workers Union (AMWU). The actual shiploading operation is carried out by members of the Waterside Workers' Federation (WWF), half of whom are also members of the TWU.

Such extraordinary diversity in the structure of ownership, in operational and industrial organisation is not inconsistent with spatially sub-optimal distributions of transport infrastructure and provides at least prima facie evidence of spatial and economic inefficiencies within a
regional transport network. Certainly, the location of three loaders within such a small area and, to some extent at least, providing a significantly competitive environment has led to a common charging practice which rationalises costs across the three loaders but in so doing, of course, effectively cross-subsidises the differential costs of the loading operations and masks the real cost differences between the loaders.

In accordance with the NSW Government’s requirement the port operates on a common user/common charge basis and KCL, PWCS and the MSB have entered into agreements which administer a common charge for each of the three loaders. This charge is calculated on estimated costs and throughputs — by adding the MSB charge in respect of the loading functions at the Carrington Basin and Steelworks loaders with the estimated portwide variable and fixed costs of the three loaders, and by dividing that total with the estimated throughput. The result of this agreement is that the cost of excess capacity which has occurred since the completion of the Kooragang Island loader is borne by all shippers, irrespective of which loader is used.

Clearly, the question of optimality of investment in transport infrastructure within such a restricted location and with such significant differences in
capacity, capability and efficiency is of the greatest importance, but this chapter is concerned not with the question of optimality \textit{per se}, but with the underlying mechanisms and processes which have given rise to this particular pattern of transport infrastructure.

Why is it that there has emerged, in the port of Newcastle in the mid-1980’s, an infrastructure base for export coal that is so apparently out of kilter? And what fundamental mechanisms are at work structuring this particular locational pattern of facility distribution and operation?

This chapter argues that in the case of the port of Newcastle this infrastructure pattern is a direct product of policy-making processes which have been driven by the underlying ideological conflict that has been inherent in the alternative policy options of the public or private provision of coal transport infrastructure; and has been effected by the power structures of, and the relationships between, Federal and State Governments and their respective bureaucratic machineries; by union power structures and inter-union rivalries as unions have sought to maximise benefits; and by coal mining and other companies and corporations as they have sought low transport costs, control over coal movement as well as economic advantage.
This chapter is divided into three parts. In Part A some aspects of the Australian political context are examined against which infrastructure decisions were made in the two decades from the 1960's. More particularly, it examines changes in the ideological framework and in Federal and State Government relationships over the period. Part B details the chronology of the infrastructure decision-making process; and Part C identifies the elements in, and the underlying principles of, the process. The final section underlines the importance of an understanding of this decision-making process in order to explain the dynamics of infrastructure provision for export coal in the port of Newcastle and present locational pattern, ownership and structure.

PART A: INFRASTRUCTURE PROVISION: THE POLITICAL CONTEXT

I: THE PUBLIC VS PRIVATE OWNERSHIP...DEBATE:
A BACKGROUND NOTE

The question of the provision and ownership of coal loading facilities in the port of Newcastle must be seen against the broader political context in Australia over the last two decades. This is because not only have federal/state powers been responsible for underlying conflicts in the process of the provision of infrastructure but so also have
the different ideological positions assumed by differing Federal/State Governments at different stages in the process. Thus, even when Federal and State Governments belong to the same political party - and the ideological stance is the same - differences in the political and bureaucratic constituencies of each may create conflicts; when, of course, there are party-political and ideological differences between the Federal and State Governments then conflict is even more likely to occur. These issues have been critical in decisions about infrastructure provision in the port of Newcastle.

In this section we explore the varying ideological positions of Federal and State Governments and changes in their constituencies through the 1960's and 1970's.

Infrastructure Provision and Changes in the Ideological Base

Through the 1960's the ruling Federal Liberal/Country Party Coalition Government had encouraged private development and had promoted *laissez-faire* investment policy (1). Jaensch (2) argues that the coalition's aim had been "... to create an environment in which industrial initiative and private enterprise could flourish" in the belief that a "competitive market economy was the key
factor in achieving general economic progress". Smith (3) suggests that Australia, at the time, had adopted an 'open door' policy on foreign investment and had acquired an image among industrialised capitalist states as a stable, open, pro-western storehouse of minerals with a government whose basic concern was the maximisation of output.

Arndt (4) has noted that the annual inflow of foreign capital, which had averaged about $180 million during the 1950's and $415 million in the first half of the 1960's, had risen from $688 million in 1965/66 to $1.4 billion in 1970/71. Fuel minerals in particular attracted large foreign capital investment and in the decade between 1963 and 1973 had increased from 15.5 percent to 71.4 percent (Table 6.2). Overseas capital came from Western Europe, particularly from the United Kingdom, and a small but rapidly growing investment from Japan. The major source of foreign capital, however, was the United States with Kaiser Steel Corporation, American Metal Climax Inc. and Utah Development Corporation (Utah) becoming involved in iron ore production; Utah and Clutha obtained a major share in coal exporting, and Kaiser Aluminium invested heavily in bauxite production (5).
### TABLE 6.2: Foreign Control of the Australian Mineral Industry 1963-1977 (percent)

<table>
<thead>
<tr>
<th>Year</th>
<th>Metallic Minerals</th>
<th>Fuel Minerals</th>
<th>Other Minerals</th>
<th>All Mining</th>
</tr>
</thead>
<tbody>
<tr>
<td>1963</td>
<td>53.6</td>
<td>15.5</td>
<td>19.2</td>
<td>36.8</td>
</tr>
<tr>
<td>1964</td>
<td>52.8</td>
<td>18.4</td>
<td>19.7</td>
<td>39.1</td>
</tr>
<tr>
<td>1965</td>
<td>57.7</td>
<td>25.5</td>
<td>25.1</td>
<td>44.6</td>
</tr>
<tr>
<td>1966</td>
<td>62.1</td>
<td>28.7</td>
<td>27.5</td>
<td>49.8</td>
</tr>
<tr>
<td>1967</td>
<td>64.9</td>
<td>32.5</td>
<td>28.5</td>
<td>52.9</td>
</tr>
<tr>
<td>1968</td>
<td>68.8</td>
<td>39.7</td>
<td>28.6</td>
<td>58.1</td>
</tr>
<tr>
<td>1971/72</td>
<td>52.8</td>
<td>68.2</td>
<td>5.3</td>
<td>55.0</td>
</tr>
<tr>
<td>1972/73</td>
<td>54.2</td>
<td>71.4</td>
<td>9.5</td>
<td>57.7</td>
</tr>
<tr>
<td>1974/75</td>
<td>56.4</td>
<td>74.5</td>
<td>12.6</td>
<td>60.2</td>
</tr>
<tr>
<td>1975/76</td>
<td>52.2</td>
<td>73.0</td>
<td>15.3</td>
<td>60.1</td>
</tr>
<tr>
<td>1976/77</td>
<td>56.4</td>
<td>67.4</td>
<td>16.7</td>
<td>59.0</td>
</tr>
</tbody>
</table>

Jakubowicz (6) has argued that Australia at the time was experiencing "a fallout from the reconstruction of Australian capitalism in the face of major inflow of foreign capital" - a consequence initially being a marked decline in manufacturing industry, unemployment and inflation. He further suggested that the creation of a Eurodollar market in the wake of United States involvement in Southeast Asia had provided a dollar surplus for investment. The first stage of the investment boom had been triggered by the rush to minerals and the corollary of this process was a massive reduction in the proportion of capital being invested in manufacturing industry - from about 66 percent in the early 1960's to 13 percent in 1971-72 (7).

By the late 1960's pressure against foreign dominance of Australia's resources had begun to develop, although it was not exclusively an anti-multinational sentiment. Rather, it was part of a more general upsurge of nationalism and a perception that Australia should be owned by Australians. The movement has been described as 'middle class radicalism' by Encel (8) and one in which quality of life issues, a concern about the social and environmental costs of economic growth, problems and weaknesses in urban planning and development and questions related to poverty were debated and took on a new urgency (9).
Concern over foreign ownership of Australian resources was also being expressed at this time within the ranks of the Liberal/Country Parties with Gorton and McEwen, for example, both adopting rather critical attitudes towards the unrestricted passage of the Australian economy into foreign ownership. McEwen, the then Deputy Prime Minister, warned against "selling off the farm" (10) and Catley (11) has argued that one reason for Gorton's replacement by McMahon in 1971 in the Liberal leadership was his intention to place greater restrictions on foreign capital inflow. During the last months of office the Federal Liberal/Country Party Coalition Government did, in fact, attempt to control further transnational dominance, passing legislation enabling the Treasurer to restrict overseas investment and prohibit any takeover by a foreign company that was not considered to be "in the national interest" (12).

The ALP in the meantime had aligned itself with the electorate's growing demands for reform and had adopted issues including the restriction of foreign investment, the urban crisis and public ownership of major facilities as part of its election platform. Patience and Head (13) suggest that it was "on the coat tails of 'middle class radicalism'" which always remained at an essentially idealistic and
moralising level – that the ALP rode to government in 1972”.

The newly elected Federal Labor Government, which had campaigned on a 'Who Owns Australia' slogan soon introduced a number of reforms with the purpose of controlling foreign investment. While the Liberal Prime Minister (Menzies) in 1965 had suggested that "he would be much happier if all foreign investors who came to Australia were willing to admit Australians to some share in the equity of the business" (14), Whitlam's speech to the Australia-Japan Ministerial Committee in 1973, in contrast, stipulated that while overseas capital would continue to play a significant role in partnership with Australian capital, his government's objective was, in specific cases, 100 percent Australian ownership. Uranium was one of the energy sources which would require full Australian ownership; so, too, were oil, natural gas and black coal (15). Subsequently this policy was modified and legislation was passed requiring mineral projects to have a minimum of 50 percent Australian equity, with 100 percent Australian ownership applying to uranium projects only.

In addition, the Minister for Minerals and Energy (Connor) had initiated a number of projects designed to develop alternate sources of energy, and ensuring
also the public ownership of export related infrastructure. These included natural gas development and a national pipeline grid, uranium enrichment plants and the provision or upgrading of four major coal exporting ports on the east coast - Hay Point, Gladstone, Newcastle and Port Kembla (16). These projects were to be funded by public borrowing - $4 billion Arab petrodollars (17) - and would be managed by existing or newly created government agencies such as the Petroleum and Minerals Authority.

The Federal Government programme entailed expansion into areas which had previously been considered the domain of State or Local Governments. Groenewegen (18) points out that in order for the Federal Government to achieve its aims, vastly increased tied grants were made to both State and Local Governments for urban and regional development. But while the states welcomed the increased inflow of funds, they resented and opposed the attempted extension of Federal Government influence.

Groenewegen (19) notes the largest areas of growth of Commonwealth funding during this time occurred in areas which had formerly been regarded as traditional state functions - education, health, urban and regional development, for example. In the three year period between 1972-73 and 1975-76
Commonwealth outlays in urban and regional development rose from $49 million to $408 million (20). While the increased funds were initially welcomed by the states, the incidence of Commonwealth intervention in traditional state responsibilities caused bitter inter-governmental financial relations as the rise in specific purpose grants were perceived as signalling a threat to state independence.

After the change of government in 1975 the Federal Liberal Country Party Coalition Government, in an effort to cut public sector spending, attempted to reverse this process. It once again devolved more responsibilities but less money to the states. While federal funding for some traditional state functions, such as education, continued to increase others, such as grants for urban and regional development, declined from $408 million in 1975-76 to $251 million in 1976-77 (21).

The neo conservative Liberalism of the Fraser Government was not, however, directed towards a 'classical' low taxation/low expenditure pattern typified by laissez-faire. In December 1975 it saw itself confronted by a large budget deficit, declining private investment, and problems of inflation and unemployment. Head (22) indicates that the government's solution was to reject
Keynesian expansionism and to concentrate on cutting the public sector's call on resources and loan funds. The aim was to encourage private sector expansion without higher government outlays on industry assistance. Encouragement to industry consisted mainly of tax concessions in order to revive investment and profitability, while grants and public spending on infrastructure fell sharply.

A revenue sharing arrangement was introduced which guaranteed the states a fixed proportion of income tax revenue while power was also granted to the states to levy income tax. In 1981 the 'razor gang' - the Federal Cabinet committee reviewing Commonwealth functions - recommended further wide ranging cuts in federal spending programmes. At the Premier's Conference in May of that year, the states were informed that Commonwealth payments to them would be reduced in real terms for 1981-82, and in June 1981 the Loan Council substantially cut the level of public loan monies available for state works and infrastructure programmes - the net savings being in the vicinity of $560 million (23).

Thus by the late 1970's a situation had arisen in which states wishing to invest in infrastructure development had to raise the funds themselves - or permit it to be undertaken by the private sector.
Infrastructure Provision and Federal/State Constituencies

Clearly, different ideological positions between Federal and State Governments on the matter of public or private ownership provided a basis for difficulty in the decision-making process for infrastructure provision; further conflicts were predictable because of the differing constituencies of power of Federal and State Governments.

A number of procedures in the process of mining and exporting mineral products, and the provision of port facilities, for example, lay within the jurisdiction of both Federal and State Governments. The cooperation and consent of both levels of government were required therefore, each level having the authority over a distinct though interdependent set of responsibilities. It was specifically the fragmentation of these responsibilities and yet their interdependency which could potentially, and in fact did, cause delays in development or prevent implementation from being carried out. While the Federal Government, for example, was unable to effectively veto a proposal for the construction of a coal loader, jurisdiction of which lay with the State Government, if such development required overseas funding, non-cooperation by the Federal Government by way of
withholding approval to obtain overseas capital could prevent or delay implementation.

The jurisdiction and authority over mineral resource development had traditionally been the prerogative of the states. Spann (24) indicates that "the States had controlled the exploration and production of minerals on their own land area and internal waterways". The authority concerning issues such as mining, issuing mining leases, transport infrastructure and port facilities were developments over which the states had overwhelming authority. Despite this, in some instances it was difficult for the states to act independently and without the cooperation of the Federal Government, which also held interests and responsibilities in mineral development. As Sharman (25) indicates, however, these were predominantly through the administrative arrangements relating to the expenditure of Commonwealth funds in state enterprises.

In addition, although the Federal Government did not possess the authority to directly control mining per se, it did have the power, indirectly, to control mineral output - by way of its ability to regulate exports, for example. Thus while the State Government possessed the authority to permit actual production, the question of exporting that product
to overseas markets required the consent of the Federal Government.

Furthermore, although the Federal Government was unable to dictate to the states conditions of development, if completion of projects undertaken by a state government required finance from overseas sources, this also required Commonwealth Government authorisation. Until 1978 States were unable to raise finance from overseas sources themselves and all overseas borrowing was coordinated by the Australian Loan Council which, since its establishment in 1928 and until 1978, had coordinated all loan programmes and loan raising on behalf of Federal and State Governments. Crough and Wheelwright (26) suggest that "coordination was intended to eliminate competition between the states in the international capital market and reduce the borrowing costs". Sharman (27) argues, however, that during the Whitlam years of government with its 'centralist' theme of administrative practices, it became the means by which the political priorities of the Federal Government could be injected into areas which had previously been considered the preserve of the states.

The requirement that overseas borrowing by the states be coordinated by and channelled through a Federal Government agency could, potentially, become
the means by which the states' activities could be curtailed by Federal Government policies. It can be argued, however, that as each state was represented on the Loan Council, which comprised the Prime Minister and all State Premiers or their nominees, the states did in fact have a voice in determining overseas loans and priorities of funding. The states nevertheless were at a distinct disadvantage at Loan Council meetings as the Federal Government had two votes and a casting vote and required only the voting support of two states in order to obtain a majority.

There existed a situation up to the latter part of the 1970's where, because of the intricacies of a federal system of government and the fragmentation of responsibilities between a number of Federal and State Government agencies, approval for a project could be granted at one government level only to be effectively prevented from being implemented at another level. This anomalous situation was possible not because of an overriding power of veto, but as a result of the authority of one government level to withhold approval of an interdependent function which was the responsibility of government at another level.

The potential existed therefore that as a result of the structure of government, conflict between
different levels of government could obstruct or prevent the implementation of policy.

PART B: FROM ONE LOADER TO THREE: THE CHRONOLOGY OF INFRASTRUCTURE PROVISION

I: THE DEVELOPMENT OF THE STEELWORKS CHANNEL AND KOORAGANG ISLAND LOADERS

The two decades from the 1960's saw fundamental reorientation and reorganisation of the Australian political and policy-making environment; but the period was characterised, too, by remarkable increases in the global demand for coal. The convergence of the two sets of circumstances is the focus of discussion in this section and becomes fundamental to an explanation of infrastructure location and provision in the port of Newcastle.

The Demand for More Loader Capacity in the Port

Production of raw coal in the Hunter Valley doubled between 1960 and 1970 when it exceeded 20.2 million tonnes (Table 6.3). In that year 5.3 million tonnes (28) of coking coal was exported through the port of Newcastle, 5.1 million tonnes destined for Japanese steel mills (29). At the time thermal coal was produced primarily for domestic purposes although small quantities were exported - less than one million tonnes, for example, in 1970 (30).
### TABLE 6.3: Raw Coal Production in the Hunter Valley, 1960-1986 (million tonnes)

<table>
<thead>
<tr>
<th>Year</th>
<th>South Maitland</th>
<th>Singleton Northwest</th>
<th>Newcastle</th>
<th>Total Hunter Valley &amp; Upper Hunter</th>
</tr>
</thead>
<tbody>
<tr>
<td>1960</td>
<td>3.1</td>
<td>1.6</td>
<td>5.8</td>
<td>10.5</td>
</tr>
<tr>
<td>1961</td>
<td>2.9</td>
<td>1.8</td>
<td>5.7</td>
<td>10.5</td>
</tr>
<tr>
<td>1962</td>
<td>2.8</td>
<td>1.9</td>
<td>5.4</td>
<td>10.2</td>
</tr>
<tr>
<td>1963</td>
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<td>1965</td>
<td>2.4</td>
<td>2.5</td>
<td>7.9</td>
<td>12.9</td>
</tr>
<tr>
<td>1966</td>
<td>2.5</td>
<td>2.8</td>
<td>8.5</td>
<td>14.0</td>
</tr>
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<td>1967</td>
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<td>1971</td>
<td>2.5</td>
<td>4.2</td>
<td>12.5</td>
<td>19.3</td>
</tr>
<tr>
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<td>2.3</td>
<td>6.8</td>
<td>13.1</td>
<td>22.3</td>
</tr>
<tr>
<td>1973</td>
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<td>1975</td>
<td>1.4</td>
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<td>1.5</td>
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<td>30.5</td>
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<td>1981</td>
<td>1.6</td>
<td>18.3</td>
<td>14.8</td>
<td>34.8</td>
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<tr>
<td>1984</td>
<td>.9</td>
<td>25.9</td>
<td>16.2</td>
<td>43.1</td>
</tr>
<tr>
<td>1985</td>
<td>1.4</td>
<td>28.7</td>
<td>16.9</td>
<td>47.1</td>
</tr>
<tr>
<td>1986</td>
<td>32.3</td>
<td></td>
<td>18.57*</td>
<td>50.9</td>
</tr>
</tbody>
</table>

* Combined South Maitland/Newcastle production 18.57 million tonnes

**Source:** Joint Coal Board, *Black Coal in Australia, 1984-85*, Sydney, p.23.
Coal exports from Newcastle had increased from less than 1 million tonnes in 1960-61 to almost 3 million tonnes in 1966-67 (Table 6.4) and the MSB, in order to enable further expansion to take place, had constructed a coal loader in the Carrington Basin in 1967. The facility, which had an annual capacity of approximately 5.9 million tonnes, comprised one tie up berth and one loading berth with two shiploaders which could be operated concurrently and each having a nominal capacity of 1,000 tonnes per hour (Figure 6.1). Vessels could be loaded directly from either road or rail transport or from the stockpile area. Throughput was constrained, however, by the 90,000 tonnes stockpile area and in order to upgrade the stockpile facilities and increase throughput at the loader, Canwan Coal Pty. Ltd. developed a second area for the rail and road receival of coal and for blending purposes. From the new Canwan facility unit trains were loaded for delivery to the Carrington Basin loader. The loading operation was carried out exclusively using front-end loaders and operators were covered by the TWU award (31) - a factor which was to have considerable significance for later development.

The double handling of coal was eliminated in 1971 when a conveyor was installed which linked the Canwan facility with the Carrington Basin loader enabling coal to be loaded directly from the
<table>
<thead>
<tr>
<th>Year</th>
<th>Tonnes (Million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1959/60</td>
<td>.4</td>
</tr>
<tr>
<td>1960/61</td>
<td>.8</td>
</tr>
<tr>
<td>1961/62</td>
<td>1.6</td>
</tr>
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<td>1984/85</td>
<td>24.7</td>
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<tr>
<td>1985/86</td>
<td>26.2</td>
</tr>
</tbody>
</table>

stockpile area (32). In addition, an upsurge of exports had highlighted the need for a greater throughput at the Carrington Basin loader and the additional stockpile area and the faster conveyor loading system was seen as a means of increasing throughput and of overcoming difficulties being experienced with vessels queuing off the port. A lengthy union dispute ensued, however, between the TWU and the Maritime Crane and Shiploading Union (subsequently known as the Waterside Workers’ Federation (Cranes Branch) over who would operate and maintain the Canwan conveyor.

The eventual outcome allowed the TWU to operate the system up to the surge bin at the MSB boundary and the Board’s employees, who were members of the Maritime Crane and Shiploading Union, would operate and maintain the conveyor system from the bottom of the surge bin up to the shiploader (33).

By the early 1970’s Hunter Valley mines were producing twice the amount of coal than a decade earlier; but, importantly, there had also occurred significant changes not only in the coal types being mined but also in the mining methods adopted and the locational pattern of mines. The traditional thermal coal districts, such as South Maitland, with their relatively large number of underground mines, were in a state of decline. Production from new and
sometimes very large opencut mines in the Singleton/North West areas of the Hunter Valley, on the other hand, had almost doubled between 1970 and 1973 - from 4 million to 7.6 million tonnes, almost 5 times the production in 1960 (Table 2.1)!

These changes were accelerated by developments in the international energy markets following the oil crisis in 1973-74.

At the onset of the energy crisis the port of Newcastle had a coal loading capacity of almost 6 million tonnes and exports were severely constrained by port facilities. In order to enable further expansion to take place, a number of developments were planned which would eliminate port congestion. In the event, however, their establishment and control was to give rise to bitter conflicts between governments and vested interest groups, leading to delays and considerable industrial disruption.

The Rise and Fall of Gollin and Company

By 1973 annual coal export from the Hunter Valley mines had reached 5.5 million tonnes (Table 6.4) and in order to relieve port congestion and enable further growth to take place a number of coal companies approached the NSW Liberal Government to obtain permission to construct another coal loader at Newcastle. Gollin & Company, the company which owned the Canwan stockpiles and receival facilities,
planned the development of a loader in the steelworks Channel with a 2,000 tonnes per hour loading capacity at an estimated cost of $50 million.

As has been noted, the development of a coal loader by a private company was in direct conflict with Federal Labor Party ideology. Public ownership of infrastructure and port facilities had traditionally been part of ALP policy and the onset of the energy crisis led the Federal Government to develop a national energy self sufficiency programme (34).

This entailed a $400 million expansion of energy supplies under direct government control (35) and as noted included a $200 million programme for upgrading the four coal exporting harbours of eastern Australia - Hay Point, Gladstone, Newcastle and Port Kembla.

In order to prevent the Newcastle loader from being developed by the private sector, the Federal Government in 1975 (36) made an offer to the NSW Liberal Government to provide finance to construct the new loader and to undertake a harbour deepening programme. The Federal Ministers of Transport (Jones) and of Minerals and Energy (Connor) (37) indicated that the offer was based -
"... on an urgent need to increase the capacity of the existing coal loading facilities at Australian ports to meet the increasing export demand (which) had increased considerably as a result of the recent oil crisis and the continued high price of oil".

The Ministers anticipated that exports would increase from 30 million tonnes in 1974 to between 50 and 60 million tonnes by 1980 (38). They further indicated that -

"Problems arose from both the inadequacy of the loading facilities at ports to cope with increased exports of coal and the inability of some ports to accept large bulk carriers.

The Australian Government, in making its offer of financial assistance (wanted) to ensure that the coal loading facilities (were) developed under public ownership" (39).

The Federal Government offer to finance construction of the loader was made on the condition that it would have a share in the ownership and control of the facility. The Treasurer (Cairns) (40) argued that private ownership would disadvantage some coal exporters. He further indicated that in the event that the State Government rejected the offer, the Federal Government might refuse permission for Gollin to borrow finance from Japan for the development to be carried out.

The offer of federal funds was, in fact, rejected by the State Government on the basis that the State was not prepared to "relinquish control of its ports to the Australian Government" (41). The Minister for
Public Works and Ports (Punch) had indicated that "NSW (would) continue to operate a policy whereby private enterprise would continue to own and operate these facilities, as (happened) in most other areas of Australia" (42).

**Trade Union Involvement**

The Federal Government stand initially had the full support of the trade union movement. The Newcastle Trades Hall Council confirmed that its member unions opposed the concept of private ownership of the loader and that it would not tolerate any action which would delay its construction (43). Uncertainty was expressed by unions concerning the future of the existing Carrington Basin loader since it was believed that a new facility would possibly replace it, resulting in a loss of jobs. Other questions were posed. If a new loader was not to replace the existing facility would the Carrington Basin loader be bypassed resulting in a reduction in throughput? If the new loader was constructed and operated by a private company and financed by Japanese interests would the bulk of Newcastle's future coal exports be tied to the Japanese market, possibly to the detriment of other coal producers and exports? Who would man the new loader and under what union coverage would it operate? The issue was not clear - employees at the Carrington Basin loader were covered by the WWF (Cranes Branch) while...
those at the Canwan stockpile were members of the TWU!

While the industry was pushing for the rapid completion of the loader, the Minister for Public Works and Ports gave assurances that the Steelworks Channel loader would not replace the Carrington Basin facility. In addition, it was confirmed that the MSB would continue to control stemming and direct vessels to loading facilities. Despite these assurances, however, the situation remained ambiguous and one report suggested that "the tangled web of commercial necessity, environmental concern, bureaucratic secrecy and local and national politics had made the coal loader anything but a straightforward issue" (44).

The ideological differences between the Federal and State Governments concerning the ownership of the loader appeared irreconcilable; the Newcastle City Council, which had initially given development approval in general terms, now became reluctant to give final approval, purportedly on environmental grounds; the PTC which operated the coal trains to the port refused to allow road receival at the new loader and, as the Commission owned the land on which the new facility was to be constructed, it intended to include a 'no road receival' condition in its lease (45).
The Unions Divided

While the trade unions, in principle, supported Federal Government ideology, an impasse had developed and a division among union ranks occurred - those unions which were likely to be adversely affected if the loader was not completed began to adopt a more conciliatory position. The existing loader was working at capacity levels and concern was expressed by the Miners' Federation, for example, that unless the second loader was completed, an order restricting production would possibly be imposed by the JCB. Collieries had a firm long term contract for the export of 11.3 million tonnes per annum with an optional extra tonnage of 1.8 million tonnes (46). But any further export expansion was constrained until the new loader was completed and members of the Northern Branch of the Miners' Federation began to argue that unless the ideological conflict between Federal and State Governments was resolved and the Federal Government could finalise construction of the loader, "we (the Federation) should give consideration to the alternative - that is for the facility to be constructed by Gollin" (47). The Federation rejected the arguments put forward by the Federal Government and some unions that a privately owned loader would not be in the public interest and would disadvantage some coal exporters. The
Federation's northern President (Chapman) argued that -

"Certain safeguards had already been given in the public interest for the Gollin proposal, namely that all coal exporters would have equal use of the new loader".

Regarding the concern expressed over the level and exercise of government control if the facility was privately owned, he stated that -

"The Joint Coal Board, which represents both State and Australian Governments, had complete control over all coal produced, and determined what coal would be transported to the loaders and also determined what ships would load for export. We support the Joint Coal Board in exercising these controls in the public interest" (48).

The TWU also found itself in an ambivalent position concerning the ownership of the loader. The Union, in principle, was in favour of public ownership of port facilities. Employees at the Canwan stockpiles, however, were already covered by the TWU award and it was believed that if the loader was owned by Gollin, employees at the new loader would also have TWU coverage. This would be unlikely if the loader was government owned and operated along the lines of the Carrington Basin facility.

By June 1975 the conflict had not been resolved. The Federal Government had continued to withhold permission for Gollin to raise overseas finance and the State Government had refused to allow the
Federal Government to participate in the development and control of NSW ports. In protest against the State Government's continued refusal to negotiate with the Federal Government concerning ownership, the WWF (Cranes Branch) imposed a ban on the receival of coal from the Canwan stockpiles. In retaliation, members of the Miners' Federation and the TWU, believing that their jobs were jeopardised by the Federation's action, imposed a ban on the delivery of all coal to the loader. The combined union action, in effect, cut off the supply of all rail-hauled coal to the port!

In July 1975 union bans were lifted when the Federal Government withdrew its offer to finance the loader and finally gave approval to Gollin to raise the necessary funds in Japan. The Federal Government had planned to finance the construction of the loader from 'petrodollar' loans to be negotiated by the Minister for Minerals and Energy (49) - a move which led to the so-called 'Khemlani affair' and which was to be instrumental in the downfall of the Whitlam Government. When the loans did not eventuate and the Federal Government withdrew its offer as it was unable to finance the loader from other sources, the unions had no option but to lift their bans and agree to private development. Furthermore, the Federal Government could no longer
withhold consent and had no real option but to give approval to Gollin to obtain overseas funds.

The Emergence of Port Waratah Coal Services and the Steelworks Channel Loader
Towards the end of 1975, and before the loan agreements for the loader finance had been finalised, Gollin had announced an $18 million loss for the year 1974-75. Construction of the loader was underway, however, and had up to that stage been funded by bridging finance supplied by Toyo Menka Kaisha, a Japanese banking company which also held a 15 percent shareholding in Gollin Port Services Pty. Ltd., the Gollin subsidiary responsible for the loader project (50). The Japanese bankers refused to finalise the loan agreement on the basis that Gollin could no longer provide adequate security for the loans. Unless the project received support promptly, however, it was believed that bridging finance was likely to stop. In order to avoid the collapse of the project the bankers had approached the NSW State Government and had requested that it provide guarantees for the repayment of the loans. The NSW Government refused to meet the Japanese request, particularly in view of its recent controversy with the Federal Government, and its overt commitment to private ownership of the loader. The Minister for Public Works and Ports (Punch) had indicated that "his Government could not, for
political reasons, become directly involved in the project unless it actually collapsed” (51). The bankers had not sought Federal Government assistance because conditions within Federal Government circles were rather unsettled at the time – the Whitlam Government had been dismissed in November 1975 and the Fraser caretaker government had been appointed. The federal election had been scheduled for December 1975 and even if the Federal Government agreed to assist there would necessarily be delays before the matter could be finalised.

Subsequently CSR had been approached by the Japanese bankers and had been offered a minimum 20 percent equity in Gollin Port Services Pty. Ltd. (Gollin). CSR coal exports from the Hunter Valley at the time were approximately 1.2 million tonnes (52) but the company had undertaken expansion of its Lemington mines on the basis that the new loader would be operational by 1977. CSR had approached Gollin at an earlier stage and expressed its willingness to participate in the project – but at the time the offer had been rejected. In response to the Japanese offer, CSR’s Mineral Division had considered that there were a number of sufficiently sound reasons to justify the company’s participation in the Gollin project. It would, for example, strengthen the position of the company’s subsidiary, Buchanan Borehole Collieries (BBC), both in the
Hunter Valley coal industry and with the Japanese steel mills. It would also protect the company’s substantial investment in the Lemington expansion by ensuring that BBC was able to take full advantage of the new coal contracts recently negotiated (53). Furthermore, the company had indicated that the additional loader capacity was required in order to minimise demurrage which was “costing shippers almost $1 per tonne coal shipped - that is, more than the current total cost of unloading, storage, reclaiming and shiploading” (54).

CSR subsequently agreed to participate on the condition that the company would have an interest in excess of 25 percent and that other Hunter Valley coal producers would also participate with an aggregate interest also exceeding 25 percent. This proviso would ensure that a consortium of Hunter Valley coal producers was the major shareholder and would prevent Gollin, which had expressed its intention of retaining a 25 to 33 percent interest, and the Japanese bankers who wanted at least a 30 percent share, from holding the controlling interest (55). In addition, CSR was to take over the management of the project from Gollin for an initial period of three years.

Thus PWCS which would modify and complete the facility at a cost of $88 million, was formed.
Shareholders of the company initially comprised Buchanan Borehole Collieries Ltd., a CSR subsidiary (25.5%); Gollin Loader Holdings Ltd. (19.5%); Coal & Allied Industries Ltd. (12.5%); R.W. Miller (Holdings) Ltd. (10%); Toyo Menka Kaisha (10%); Japanese steel mills (10%); Japanese trading houses (10%); and Bloomfield Collieries (2.5%) (Table 6.5).

The new Steelworks Channel loader was opened in May 1977 with an initial capacity of 9.5 million tonnes per annum (Figure 6.1). The facility comprised one tie up berth and one loading berth consisting of two ship loaders, each with a nominal capacity of 2,000 tonnes per hour. Coal receival and storage areas had a nominal capacity of 1 million tonnes but as a result of blending and the segregation of thermal and coking coal operations, the effective capacity was reduced to approximately 650,000 tonnes (57).

When the Gollin loader was initially planned coal was to be received by rail only but modifications were subsequently made in order to accommodate the exports from a number of mines with limited operating lives, as well as mines located in the Newcastle/Lake Macquarie area, which did not have ready access to rail. It was agreed that these mines - Wallsend Borehole, Delta, Gretley, West Wallsend and Bloomfield - would be permitted to road haul their coal to the port for a specified
### TABLE 6.5: Shareholders in Port Waratah Coal Services Ltd.

<table>
<thead>
<tr>
<th>Shareholders</th>
<th>Participation Interests</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buchanan Borehole Collieries Pty. Ltd.</td>
<td>25.50%</td>
</tr>
<tr>
<td>Coal &amp; Allied Industries Limited</td>
<td>12.50%</td>
</tr>
<tr>
<td>R.W. Miller &amp; Co. Pty. Ltd.</td>
<td>10.00%</td>
</tr>
<tr>
<td>Bloomfield Collieries Pty. Ltd.</td>
<td>2.50%</td>
</tr>
<tr>
<td>Gollin Loader Holdings Pty. Ltd.</td>
<td>19.50%</td>
</tr>
<tr>
<td>Nippon Steel Corporation</td>
<td>4.01%</td>
</tr>
<tr>
<td>Sumitomo Metal Industries, Ltd.</td>
<td>1.51%</td>
</tr>
<tr>
<td>Nippon Kokan K.K.</td>
<td>1.59%</td>
</tr>
<tr>
<td>Kawasaki Steel Corporation</td>
<td>1.57%</td>
</tr>
<tr>
<td>Kobe Steel, Ltd.</td>
<td>0.87%</td>
</tr>
<tr>
<td>Nisshin Steel Co., Ltd.</td>
<td>0.31%</td>
</tr>
<tr>
<td>Nakayama Steel Works, Ltd.</td>
<td>0.09%</td>
</tr>
<tr>
<td>Osaka Iron &amp; Steel Co., Ltd.</td>
<td>0.05%</td>
</tr>
<tr>
<td>Mitsui &amp; Co., Ltd.</td>
<td>4.00%</td>
</tr>
<tr>
<td>Mitsubishi Corporation</td>
<td>2.70%</td>
</tr>
<tr>
<td>C. Itoh &amp; Co., Ltd.</td>
<td>1.30%</td>
</tr>
<tr>
<td>Nissho-Iwai Co., Ltd.</td>
<td>1.30%</td>
</tr>
<tr>
<td>Nichimen Co., Ltd.</td>
<td>0.70%</td>
</tr>
<tr>
<td>Toyo Menka Kaisha, Ltd.</td>
<td>10.00%</td>
</tr>
<tr>
<td></td>
<td>100%</td>
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</table>

period (58). A levy of $0.40 per tonne was imposed however, for coal transported by road for the first five years of operation and increasing thereafter — to $0.60 between five and ten years after commissioning and $1.00 per tonne after ten years (59).

The stockpile and receival facilities, which were connected to both the Carrington Basin and Steelworks Channel loaders were operated by PWCS while the associated wharfside conveyors and shiploaders were leased to and operated by MSB. The throughput capacity of the loader was 9.3 million tonnes increasing the total Newcastle capacity to 15 million tonnes. A condition of the PWCS Lease was that the Carrington Basin throughput would not be less than 5 million tonnes per annum.

The Continuing Boom and Further Pressure on Loader Capacity

The late 1970's continued to be a period of extreme optimism for Australia's future in coal exports. The oil crisis in 1973-74 and the further oil price increases in 1979 associated with the Iranian revolution, led to a rapid expansion of thermal coal production. It was anticipated that coal would continue to replace oil as the primary energy source for electricity generation, particularly in those countries which were heavily reliant on the
increasingly expensive oil imports, such as Japan as well as the rapidly growing economies of Korea and Taiwan.

Production in the Hunter Valley doubled between 1970 and 1982. In particular, opencut mining in the Singleton/Muswellbrook areas underwent rapid development and production increased - from 1.7 million tonnes in 1970 to 16.1 million tonnes in 1982 (Table 2.5). Between 1979 and 1981 fourteen (60) new mines began production in NSW, and in 1981 seven mines were opened or expanded - all were located in the Hunter Valley. These were Warkworth No. 1 opencut, Myuna, Pikes Gully, Benwerrin opencut, Saxonvale opencut, Mount Thorley opencut, and Northern opencut (Figure 6.2) (61). It was estimated that in June 1981 projects totalling $4 billion, mainly for coal, were either at the committed or final feasibility stages (62).

As a result of the rapid expansion, and particularly after Warkworth, Saxonvale and Mount Thorley mines became operational, it was anticipated that severe congestion would be experienced at NSW ports. Export projections indicated that the demand on Newcastle coal loading facilities would be as high as 50 million tonnes by 1980 (Figure 6.3).
FIGURE 6.2: Location of Coal Mines in the Hunter Valley NSW

Source: Joint Coal Board
FIGURE 6.3: Projections of Export Coal Through the Port of Newcastle

Newcastle’s annual loading capacity in 1979 was 15 million tonnes. The harbour had been deepened to 13.1 metres enabling the Steelworks Channel loader to accommodate vessels up to 70,000 DWT. Although further harbour deepening projects were underway - to 15.2 metres, which would enable PWCS to berth 110,000 DWT vessels - these would not be completed until 1981. The Carrington Basin had also been deepened to 13.1 metres, but for structural stability reasons the depth at the face of the wharf remained at 11.6 metres, restricting its use to vessels up to 55,000 DWT (63).

The existing infrastructure once again was considered to be a constraint to future growth, and planning to expand Newcastle’s loading capacity was further undertaken and plans to construct a third coal loader were initiated. A Task Force found that the 15.2 metre deep channel leading up to Kooragang Island and the availability of large areas of land already served by rail, made the area a suitable location for the development of Newcastle’s third loader. It estimated that a loader on Kooragang Island with a capacity of 25 million tonnes would cost approximately $120 million and would be capable of loading vessels up to 150,000 DWT. In addition, it had considered that further expansion at PWCS was feasible by deepening the Steelworks Channel to a depth of 17.2 metres. This would enable vessels up
to 170,000 DWT to depart fully loaded with a draft of 16.75 metres. The construction of a new loader in Kooragang Island, together with the expansion at the Steelworks Channel loader, would give the port a total capacity of 50 million tonnes per annum (64).

Planning for a Third Coal Loader

In March 1980 the NSW Premier (Wran) announced that a third coal loader would be constructed in the port of Newcastle on Kooragang Island. Earlier investigations into the feasibility of constructing an offshore facility, or alternately an on-shore loader in Stockton Bight near Williamtown had been abandoned because of high costs - estimated at $360 million (65).

It had not been determined, however, whether the Kooragang Island loader would be government owned and operated by the MSB, as in the case of the Carrington Basin loader, or whether it would be a system similar to that of PWCS and the Steelworks Channel loader. The questions of ownership and who would operate the new facility once again became a controversial issue and one which would, again, be resolved by political means. Government conflict in this instance, however, was restricted to within the ranks of the State Government.
The NSW Combined Colliery Proprietors’ Association had expressed the view that -

"The industry wishes to see the third loader operation fully integrated with the existing Steelworks Channel and the Basin loaders to ensure maximum flexibility of operations, an essential requirement if port operations are to be rationalised and optimised. It believes that this could only be satisfactorily achieved by the participation of Port Waratah Coal Services Ltd., as the industry vehicle, in the new company" (66).

The Chairman of the Association had informed the MSB that -

"its northern members believed that PWCS should be responsible for planning, design and construction of the third loader and that the PWCS Board had agreed, in principle, to finance and build the loader. This decision had been supported unanimously by the northern members of the Association" (67).

PWCS itself had indicated its willingness to undertake control of the loader as it believed the new facility would then become part of a coordinated Newcastle coal loading system. The company, after investigating a number of alternative avenues for ownership had established that there would be significant advantages if PWCS financed, constructed, and operated the loader. These included the company’s capacity to borrow additional funds; the company’s reputation as a recognised coal loader operator in the world coal trade; administrative simplification and provision of cost efficiencies; a more efficient and greater
rationalisation of stockpiles and more orderly and sensible handling of coal (would) be achieved if management of all Newcastle coal loader facilities was through the same organisation (68).

The position of the NSW Labor Government suggested that some ideological changes had occurred since the Whitlam days. Although factions within the Labor Party continued to urge public ownership of port facilities, the Government now indicated that the coal companies, and not the taxpayer, would have to pay for more of its infrastructure (69).

Union Response

Opposition from unions to the possible private ownership of the loader again mounted, although the Newcastle Trades Hall Council initially adopted a more conciliatory stand on the issue than had occurred during the second loader controversy. The Council now recommended that the Government should enter into a 'partnership with private enterprise' and that a 'fair share in the ownership would be 50 percent' (70).

The AMWU, however, recommended a total ban on the construction of the loader, passing a resolution in support of state ownership of any coal loading facility in Newcastle harbour. The WWF (Cranes Branch) also urged the State Government to build the
loader and for the MSB to operate the facility. It was reported that union leaders feared that jobs at the older Carrington Basin loader would be lost if the third loader was built and the PWCS facility was expanded (71).

Consequently a meeting of unions covering the construction and operation of the proposed loader agreed unanimously to ban its construction until 'outstanding issues' with the State Government had been resolved. The unions supporting the ban were the FEDFA, the WWF(Cranes Branch), the Maritime Services Board of NSW Clerical and General Officers Association, the Seamen's Union, the AMWU, the ETU, the Building Workers' Industrial Union and the Plumbers' Union.

The 'outstanding issues' which required resolution before the industrial ban would be removed included the continuity of jobs at the Carrington Basin loader; the future of the Basin loader; and the ownership and control of the third loader. A further issue of concern was the apparent gradual erosion of the role of the MSB as the port’s controlling authority. It was argued by the Newcastle Trades Hall Council that woodchip and alumina wharves were being constructed by private enterprise on Kooragang Island and the unions wanted
to prevent this from being repeated with the coal loader (72).

In order to appease the unions, the Minister for Public Works and Ports (Ferguson) indicated that before any decisions on the third loader were made, the unions would be consulted. He further assured the unions that "there was no likelihood of the Carrington Basin coal loader being closed within the next few years" (73).

The President of the MSB (Wallace) supported the Minister's statement, arguing that the Board had recently spent $4 million on deepening the Carrington Basin area and was in the process of further upgrading the plant. This would not have been undertaken if closure of the facility was imminent. Furthermore, he argued, with a total of 25 million tonnes of coal expected to be handled in the port by 1985, all possible coal loading capacity would be required (74).

Despite the fact that the unions were given a number of assurances and undertakings by government concerning security of employment, in July 1980, following the recommendation of the AMWU, a series of 24 hour rolling strikes was introduced in an attempt to force a decision in favour of government ownership of the loader.
Division within the trade union ranks occurred, however, when the TWU while being affiliated with the Newcastle Trades Hall Council, opposed the union ban on the basis that it would not tolerate any action that could adversely affect its members. The Union secretary (Varnum) stated "that the union would not back away from a situation which required some retaliation from our members should their livelihood be disrupted" (75).

Stalemate once again!

Once again a stalemate situation occurred in Newcastle with pressure groups balanced to such an extent that the making of any decision on the loader was likely to cause reactions and adverse repercussions from vested interests - thus no decision was made! Although it was widely recognised that the third loader would be required by 1985, possibly by 1983, agreement regarding ownership was not reached. Government was unable or unwilling to take a positive stand and make what would be, for some factions, an unpopular decision. The TWU continued to condemn the rolling strike action arguing that it was "a threat to the viability of the port of Newcastle"; other unions, such as the AMWU and the WWF (Cranes Branch) continued to demand government ownership of the loader; while the Miners’ Federation, although
supporting the concept of state ownership of coal loading facilities, indicated that "no dispute should be allowed to delay construction" (76).

Government, as a result, was in an unenviable 'no win' situation. If it decided to permit the private sector to construct the facility, the project would be delayed as maritime unions threatened to impose work bans. Such delays could postpone the opening of new mines in the Hunter Valley and undermine further the confidence of overseas coal buyers. Throughout 1980 Newcastle had undergone a period of industrial anarchy with rolling strikes on the waterfront, imposition of bans, stoppages in mines and delays on coal trains, the cumulative effect of which had been severe problems of coal ships queuing off Newcastle. If Government decided, however, that the loader be built by the MSB, then problems of coordinating the three loader operations would be likely.

It appears that no action was taken because government itself was divided over the ownership question. It was suggested that the Premier (Wran) favoured private ownership, while the Deputy Premier and Minister for Public works and Ports (Ferguson) was committed to state control of port facilities. In addition, if government bowed to union and faction demands and agreed to public ownership of
the loader, then it would have to raise an estimated $200 million for the first stage of construction itself. Mining companies had agreed to pay for the facility but only on the condition that it be constructed and operated by PWCS. The companies had refused to finance the loader if it were built, owned and operated by the MSB.

The Formation of Kooragang Coal Limited and a New State-of-the-Art Coal Loader

In a context characterised by threat, counter threat and acrimonious exchanges between opposing forces, a compromise solution was sought. To this end the Premier in January 1981 indicated that the new loader would be neither publicly nor privately owned; rather, a compromise solution had been reached and the loader would now have joint public/private ownership! The Premier (77) announced that -

"Cabinet had approved the formation of a new company to finance and build the new coal loader at Kooragang Island Newcastle.

The Government would hold a 20 percent equity in the new organisation and companies that (were) presently or would in the future be shipping coal through the Port of Newcastle would be offered the right to participate in the remaining equity".

The Premier further stated that -

"Cabinet had decided the new loader would operate as a common user facility and that the traditional maritime unions would be used to operate and maintain both the
The announcement initially did little to allay union hostility and opposition. The TWU suggested that the State Government’s solution was ‘almost unworkable’ and threatened to place a ban on the construction of the loader “unless the jobs of its members at PWCS were guaranteed”, while MSB employees at the Carrington Basin loader resolved “to resist any proposal that a private company be responsible for the management of the loader” (78).

The Premier’s statement that ‘the traditional maritime unions’ would operate the facility became a contentious issue and all unions demanded clarification. The TWU, as already noted, being the union employed in the stockpiling and coal receival operations at PWCS, demanded to be classified as a ‘traditional maritime union’. Employees of the MSB also requested clarification from government because although ‘traditional maritime unions’ were to operate the facility, it was not specified whether this in fact included labour at the time employed by the Board (79).
In terms of ownership it was proposed that the NSW Government would hold 20 percent equity through its agency, the MSB, and the balance would be offered to both Australian and foreign investors. Initially offers to participate were extended to coal exporters and buyers only. Curiously, despite the fact that PWCS had been requested by government to assist in the planning of the loader, it was not invited to invest in the newly formed company — although transport companies such as Thomas Nationwide Transport and Brambles Ltd. were offered equity. When the Deputy Premier (Ferguson) was questioned on the specific exclusion of PWCS, he indicated that "government had decided that the companies presently shipping coal or with future prospects of shipping coal should be invited to participate in the Australian shareholding of the company". PWCS, being a consortium of coal shippers and Japanese coal buyers and users, did not ship coal in its own right (80).

It was suggested that the fragmented ownership of the three Newcastle loaders, as a result of the government's decision, would create problems of coordination. In order to ensure integrated operation of the three facilities, the NSW coal industry proposed that a company be formed which would finance the loader, including the Government's 20 percent share, but which restricted the remaining
80 percent private shareholding to shippers, potential shippers and consumers of coal. In addition the company would take over all share capital in PWCS ensuring proper coordination of all coal loading facilities in the port (81). The industry proposal was rejected by government.

Although the problem concerning equity in the new company was resolved the question of management and operation of the loader had not been addressed. In May 1981, somewhat unexpectedly, the Premier announced that BHP, which had agreed to be a major shareholder in the company, had agreed to act as manager of the loader. It was announced that BHP would hold 30 percent of shares - giving the company, together with the MSB, the controlling interest. The company’s shareholders were - BHP (30%); MSB (20%); Newcastle Coal Shippers (27 1/2%); Howard Smith (12 1/2%) and Japanese participants (10%).

The question of what had prompted government to appoint BHP rather than PWCS as manager of the new loader is a matter for conjecture. The acting secretary of the TWU (Quinn) suggested that a 'sweetheart deal' had been made between BHP and the MSB (82). It was further suggested that the NSW Government had given BHP a 30 percent interest in the loader and management of the facility as a
'trade off' for the company agreeing to contribute $30 million towards the cost of providing power infrastructure for the planned Lochinvar aluminium smelter (83). These allegations were denied by BHP and the company indicated that although it had no previous experience in designing a major coal shiploading plant, it did have "the most extensive experience in materials handling in Australia" and it was this expertise which had prompted the government to make the offer of management of the loader (84).

It is likely that the appointment of BHP was a diplomatic strategy. Both factions strongly supported either the PWCS or MSB appointment and as a compromise could not be reached, the decision was made to select neither and instead appoint a third party.

The government decision meant, however, that the port of Newcastle would have three loaders by 1984 each having different ownership and managements. The decision may also have been prompted by a desire on the part of government to diversify control of the port's loading facilities. If either the MSB or PWCS had been given management of the loader it effectively would have meant that a single company, albeit a consortium or a government agency, would have had the monopoly of coal loading operations in
the port. PWCS would have had the monopoly over stockpile operations while the MSB would have held the monopoly over all shiploading operations.

The question of manning the loader and union coverage had not been resolved, however, nor had guarantees of job security been given to employees at the Steelworks Channel and Carrington Basin loaders. To prompt resolution of the issues a ban on the dredging and construction of the loader was imposed by the TWU. The Premier, in response, made an offer giving guarantees that the two existing loaders would not be bypassed and that a minimum of fifteen million tonnes would be loaded annually at the Steelworks Channel and Carrington Basin loaders, once the Kooragang Island loader was operational. In addition, government would negotiate with PWCS to ensure that no retrenchments would occur at the plant, and the MSB would ensure that no retrenchments would occur at the Carrington Basin loader (85). Despite these assurances, the TWU ban was not lifted until December 1981.

Construction of the Kooragang Island coal loader (Figure 6.1) commenced in February 1982 and was planned as a phased development initially with an annual capacity of 15 million tonnes. At the completion of Stage I the facility comprised one loader head with a nominal capacity of 10,500 tonnes.
per hour. (An actual loading rate of 6,700 tonnes per hour was achieved in December 1986 when 130,000 tonnes were loaded on the *China Fortune*) (86).

The loader can handle vessels up to 150,000 DWT, with an eventual capacity to accommodate vessels up to 180,000 DWT. The stockpile area for Stage I has a 1.5 million tonnes capacity and at present coal is received by rail only - although in February 1987 approval was obtained from the DEP for restricted road receipt. Five export mines were given approval by the Minister for Transport to road haul coal to the Kooragang Island loader. These were Gretley and Wallsend Borehole, which do not have access to rail, and Stockrington No. 2, Bayswater and Muswellbrook Collieries (Figure 6.2) which do have access to rail, but approval to transport by road was granted on economic grounds (87). This does not mean an increase in road haulage of coal in the Newcastle area but it does mean a different pattern of distribution. Previously these mines, of necessity, shipped through the Steelworks Channel or the Carrington Basin loaders as PWCS only had road receipt facilities. Consequently, export coal from these mines was restricted to Cape and Panamax size vessels. Government's decision meant that these mines could now use the Kooragang Island facilities which had previously been restricted to rail receipt only.
PART C: EXPLAINING THE POLICY PROCESS

I: THE PROCESS OF POLICY-MAKING AND COAL TRANSPORT INFRASTRUCTURE PROVISION: CONFLICTING IDEOLOGIES, CORPORATE ADJUSTMENTS AND UNION RIVALRY

Against the background of spatial and economic changes in the mining industry in the Hunter Valley over the last two decades, and in the context of major political reorganisation which occurred in Australia during that period, it is useful to emphasise, in this final section what appear to be the underlying structuring mechanisms of the policy-making process of coal loader provision in the port of Newcastle.

The chronology of events, discussed in the preceding section, has clearly indicated an exceptionally conflict-ridden decision-making environment; but what was the basis of the conflict? To what extent was it fuelled by bureaucratic power plays? Or corporate financial power? Or union intransigence? Was it conflict among equals? Or among groups with changing alliances? And to what extent did conflict-resolution necessitate compromise? Or consensus?

This section focusses on these issues and examines, in turn, the role of State and Federal Governments
and fundamental differences in the policy base, corporate structures and relationships and actions and reactions of unions.

**Ideology of Ownership: the Underlying Factor**

Fundamental differences in ideological positions on the question of infrastructure provision taken by successive Federal and NSW State Governments over a period of two decades were the bases of continuing conflict in the process of the provision of coal loading facilities in the port of Newcastle.

Should facilities be provided by government, as a public utility, or by industry?

For the Carrington Basin loader the answer was simple - the prevailing ideology, public provision and ownership, had been well established over a long period of time and there was little, if any debate in the Askin State Liberal Government that it would build and finance the loader. Nor did the question of possible Federal Government intervention into what had traditionally been State Government affairs arise during the Menzies era of the 1960's. But by the early 1970's when the planning of a second loader was under discussion and again, in the late 1970's, when a third loader was required, the policy issue was no longer clear-cut.
The new 'nationalism' of the Whitlam Government and its efforts to secure Australian ownership of mineral resources and publicly owned coal loading infrastructure was coincident with a State Liberal/Country Party Coalition Government whose policies had become essentially expansionist in character, and which during the early 1970's actively promoted private ownership of port facilities. Thus the potential for ideologically oriented inter-government conflict was inherent within the platforms of the major political parties.

The Whitlam Government was committed to public ownership of port facilities and opposed the NSW Government action granting Gollin permission to construct Newcastle's second loader. The Federal Government, in an effort to implement its public ownership policy, had offered to finance construction of the loader itself on the condition, however, that it would also own and control the facility.

The NSW Liberal/Country Party Coalition Government, in contrast, promoted a policy whereby the private sector would be encouraged to own and operate coal loading facilities. Consequently, the offer of Federal Government funds had been rejected by the State Minister for Public Works and Ports (Punch) (88) who had indicated also that NSW would not relinquish control of its ports to the Federal
Government nor would the State Government tolerate any Federal Government intrusion into traditional State Government affairs.

The problem of inter-government conflict was further exacerbated because jurisdiction over different aspects of mining and infrastructure development was fragmented and was the responsibility of a number of Federal and State Government departments. The potential for conflict, as illustrated in the Gollin study, occurred precisely because of the different power constituencies of the two levels of government, and it is clear that smooth and uninterrupted implementation of policy could occur only if government cooperated at both levels. Thus while the Federal Government could not effectively alter the State Government decision on the private ownership of the second loader, it was able to create considerable delays in policy implementation as it did have the authority to prevent Gollin from borrowing the necessary funds from an overseas source.

The controversy over the ownership of Newcastle's third coal loader was also the outworking of ideologically based policy clashes, although during the late 1970's these were less clear-cut and occurred primarily within the machinery of the State
Labor Government, rather than between different levels of government.

At the time the Liberal/Country Party Coalition Government in Canberra under Fraser's leadership, was not a return to *laissez-faire* and, as Loveday (89) suggests, its policies were broadly similar to those revised policies of the outgoing Labor Government, although it was clear that it was more sympathetic to private enterprise and anxious to secure foreign investment. But although members of the Federal Coalition Government had expressed concern over the possible inadequacy of coal loading facilities in NSW, there was no suggestion that the Federal Government itself wanted to assume responsibility for NSW port infrastructure.

The ideological position of the State Labor Party was rather ambiguous and displayed inconsistencies and internal party disharmony and, as Painter (90) argues, the Wran Government's policies whose central theme was development, were only marginally related to traditional ALP ideology. The NSW Labor Party leader and Premier (Wran), while ostensibly adhering to ALP ideals had also indicated on a number of occasions that the coal companies, rather than the NSW taxpayer, would have to finance infrastructure development. Wran's pragmatic approach and subsequent responses to pressure from factions
within the ALP clearly demonstrate that government itself was divided over the issue and that, within the echelon of the State ALP, opposition to the Premier’s implied policy existed. Jack Ferguson, for example, the Minister for Public Works and Ports and the Deputy Premier, while not overtly stating that the State Government should build the loader, was closely aligned with the trade unions, many of whom were lobbying for a publicly owned facility and were threatening industrial action if this did not eventuate. Ferguson’s personal stance for public ownership was apparent when he had earlier commented that “if the present government had been in power when the second loader was built, it would have been publicly owned” (91).

Division within the State Government bureaucracy also occurred with the MSB, for example, also being in favour of a government owned loader. The Board, however, while having indicated that it wanted to design, operate and control the facility, was unwilling to finance its construction.

The government’s ideological division and factional alliances led to a ’no win’ situation and, not surprisingly, government indecision. If it permitted the private sector to develop the facility, it would prove to be unacceptable with some unions and construction was likely to be
delayed as a result of industrial bans. If the government agreed that the loader should be publicly owned then there would also occur union opposition, but from another faction. In addition, government was not prepared to finance the construction of a public facility itself. And although the mining companies had agreed to finance the loader, the offer had been made on the condition that it would be designed, constructed and operated by PWCS.

Corporate Structure and Infrastructure Provision: Consensus, Control and Compromise?
For the most part firms seek more, rather than less, control over their production and distribution functions. Public ownership and operations of coal loaders therefore represent a conflicting strategy that may present, or may be perceived to present, difficulties.

How did the mining companies, and the corporate sector generally, meet the varying positions taken by State and Federal Governments on coal loader provision? Was the corporate response active or reactive? Was it strongly focussed on an industry leader? Or was it weakened by industry fragmentation?
Interestingly, corporate responses were quite different in each of the three circumstances under investigation - in the case of the proposal by Gollin to construct a loader the corporate response was consensual rather than conflictual; for the formation of PWCS, changing circumstances had prompted inter-corporate differences and the emergence of an industry leader; and by the late 1970's frustration of corporate aims underlay a compromise response to the ownership question.

The Gollin Loader: a Consensus Position

There was no doubt among industry interests that a second coal loader was critical if Hunter Valley mines were to expand production and exports. The Gollin proposal - the construction and financing of a loader by Gollin Port Services, a company jointly owned by Gollin and Toyo Menka (Figure 6.4) - was seen to be an attractive resolution to an acute loading capacity problem by a relatively small number of coal exporters then in the trade. It was not the only option, however, as Thiess Holdings, a company which had greatly expanded its Queensland coal operations and which saw possibilities of expanding into the NSW fields, had also proposed the construction of a loader on Kooragang Island. Given that the Gollin loader was planned as a common user facility and that no capital contribution was required from other exporters, the Thiess proposal
FIGURE 6.4: Corporate Structure Gollin Holdings Ltd.

Source: Jobson's Year Book of Public Companies of Australia and New Zealand 1976 - 1977
was an expensive alternative and it is not particularly surprising that the Gollin project was readily accepted.

Gollin's move was motivated by the company's export requirements - it held 99.6% percent equity in Gunnedah Colliery Pty. Ltd. which was in the process of expanding its Gunnedah No. 2 mine, as well as holding further substantial mining leases in the Hunter Valley. In addition, Gollin's move was an overt strategy, not only to increase coal loading capacity, but also to establish itself as an industry leader and gain control of coal loading operations. The company already owned and operated the largest stockpile and receive area in the port - Canwan - which supplied coal to the Basin loader, and the expansion of this facility and the construction of a second loader would give Gollin the monopoly over coal loading operations in the Newcastle port. Gollin specifically sought sole ownership of the loader and when offers to participate in the venture were made, by CSR for example, these were rejected. Not surprisingly then, with little or no opposition to Gollin's proposal which would benefit all exporters, and was considered crucial to further development of the Hunter Valley, planning was undertaken and evoked a corporate response which was consensual rather than conflictual.
By the mid-1970's, however, new mines were being developed, projections for export increases were optimistic and some considerable changes had occurred in the ownership structure of Hunter Valley export mines. Mining interests which had previously been held by relatively few established companies were expanded and a spate of new companies had entered the field; established corporations were in the process of expanding their existing holdings; and some non-traditional mining companies were either in the process of or planning takeovers of existing mines or establishing new developments. Thus by 1975-76, with increasing complexities in corporate structure, the potential for inter-corporate conflict was greatly increased, and underlying the initial moves in the PWCS was an atmosphere of competition for control of the new company.

Competition between mining companies arose for the majority holding in the newly formed company and a jostling for the control and management of the loader. Both Gollin and CSR were vying for the majority interest with CSR emerging as industry leader. Gollin had indicated that it wanted to retain a 25 to 33 percent interest in the loader.
which, together with a 30 percent Japanese equity, would have given the controlling share to Gollin Port Services. CSR's agreement to participate in the Gollin venture, however, was made on the condition that a consortium of Hunter Valley coal exporters hold the majority interest, which in effect prevented Gollin from retaining either a controlling share in the company or from having the management of the loader.

Following CSR's successful bid to dominate PWCS interests, industry consensus followed and all major Hunter Valley exporters, with the exception of Clutha, agreed to support CSR's proposal and to participate in the consortium. Coal exporters were united in the belief that expansion of production and the ability by the companies to fulfil future contractual obligations was dependent upon the completion of the loader. A list of PWCS shareholders (Table 6.5) clearly shows a close correlation between corporate structure and mining interests.

CSR, for example, being the major single shareholder and operator of the company with 25.5 percent equity, was shipping approximately 15 percent or 1.2 million tonnes (92) of total Hunter Valley export coal. But the company's actions in pushing for a speedy completion of the project was prompted by the
fact that its Lemington mines expansion had been initiated on the basis that the new loader would be operational by 1977.

Gollin's subsequent actions also were motivated by vested interests and despite its failure to maintain control of the project and the subsequent instigation of liquidation proceedings, it did not exclude the company from holding shares. The formation of Gollin Loader Holdings, jointly owned by Gollin, Thiess and Peko Wallsend, became the means by which Gollin would hold equity in PWCS. It also enabled Thiess, after an earlier unsuccessful attempt to diffuse its coal mining activities into the Hunter Valley, to successfully expand its coal interests into the Valley. Peko Wallsend also held an interest in the completion of the loader and consequently agreed to participate. The company, through its subsidiary Newcastle Wallsend Coal Co., was already operating the Pelton and Gretley Collieries at Wallsend. It was also preparing the Ellalong project for production and it was anticipated that the Pelton and Ellalong mines had an estimated potential of 61 million tonnes (93). In addition, the company was negotiating with Gollin for the acquisition of 51 percent shares in Gollin Wallsend Coal Co. which would give Peko a 51 percent equity in Gunnedah No. 2, as well (94). Production
from all four mines was destined for export through the port of Newcastle.

Clutha Development, however, while being a major Hunter Valley coal exporter, shipping approximately 24 percent or just under 2 million tonnes annually (95) declined to hold equity in the company. The precise reason for Clutha's refusal to participate is obscure but it appears likely that it was due to a combination of factors. Clutha at the time was already part of a consortium which was planning the construction of the Botany Bay coal loader as an outlet for its Western and Southwestern coal and the company was unwilling or unable to invest in two coal loaders. In addition, despite the fact that Clutha, as part of a consortium, was negotiating the construction of the Botany Bay loader, the philosophy of the company was to engage in coal mining rather than in the ownership of export facilities. An exception to company policy was made in the case of the construction of the Botany Bay loader because this was considered to be imperative for the survival of the company's Burrargorang Valley mines. Although expansion of Hunter Valley mines was also constrained by existing loading facilities, a comparable sense of urgency did not exist.

BHP, also, while being a driving force behind the completion of the Kooragang Island coal loader, did
Although the company's Hunter Valley mines had an annual production exceeding 2 million tonnes, all BHP coal at the time was exclusively for the domestic market - 1.7 million tonnes were transported to the Newcastle steelworks and the balance to Vales Point Power Station (96).

The formation of PWCS also saw the strengthening of Japanese investment in Hunter Valley port facilities - from 15 percent interest in Gollin Port Services to 30 percent in PWCS. The Japanese investment (Table 6.6) consisted primarily of steel manufacturers and chemical and power generating companies and was undertaken in order to ensure efficient and reliable export infrastructure to service the expanding Japanese markets.

Kooragang Island Coal Loader: Government Compromise and Corporate Structure

By the early 1980's conflict within the Hunter Valley coal industry was rife and periodically reached intensities which virtually paralysed coal loading and industry operations. During a period of industry prosperity and optimistic projections for the future of NSW coal, why had a breakdown in communications occurred between a number of mining industry interest groups? Indecision on the part of government and anarchical trade union tactics is
<table>
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<th>Name of Shareholder</th>
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<tr>
<td>Nippon Steel</td>
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<tr>
<td>Sumitomo</td>
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<tr>
<td>Nippon Kokan</td>
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</tr>
<tr>
<td>Kawasaki</td>
<td>1.57</td>
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<tr>
<td>Kobe Steel</td>
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<tr>
<td>Nisshin Steel</td>
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</tr>
<tr>
<td>Nakayama Steel</td>
<td>.09</td>
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<td>Osaka Steel</td>
<td>.05</td>
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<td></td>
<td>10.00</td>
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<tr>
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<td>Michimen</td>
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<td>Toyo Menka Kaisha</td>
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only part of the answer. What was the role of the mining companies in these events and why were they fragmented and vulnerable to pressure group demands? Why was it that a number of very large and powerful companies were unable to emerge as leaders and be influential in effectively formulating and initiating policy? Why was it that they appeared as the recipients of policy decisions devised by other groups and apparently at the mercy of other and better organised factions?

A number of corporate changes and operational practices, generated by market demands had, by the late 1970's, greatly intensified the complexity of the Hunter Valley coal scene. Rising production and export and a widespread belief that the Hunter Valley coal industry was a sound economic investment proposition, had led to an increase in companies, often other than those which had traditionally been engaged in coal mining activities, entering the field. With the rise in number and types of companies participating in mining ventures, all being driven by an essentially competitive ethos, further fragmentation within industry occurred resulting in increased potential for conflict and a vulnerability to pressure group demands.

In addition, changes in corporate policies of the individual companies led to a situation in which
some companies which had previously not participated in port operations now began to emerge as industry leaders. The downturn of local steel production and the growing overseas demands for Australian coal led to a situation in which traditionally captive mining operations were beginning to enter the export market. Consequently, powerful companies, such as BHP, for the first time had a vested interest in coal loading operations and infrastructure provision at the Newcastle port. There occurred further changes in corporate holdings and in some instances, a concentration of interests as company takeovers were negotiated and non-traditional coal mining companies established positions of power. Thus the situation had evolved in which mine ownership by 1980 was increasingly diverse. There had emerged a number of influential companies, however, each vying for the position of industry leader - this would be an important factor in the establishment of KCL as they would compete for the control and management of the loader.

The inherently weak industry position, as a result of internal fragmentation, led to a situation in which industry, rather than maintaining a leadership role and being instrumental in the formulation of government policy, was in fact a recipient of policy devised by other, more powerful factions. In fact, the ownership of Newcastle's third loader was the
outcome of power plays between government factions and other vested interest groups, and the ultimate corporate structure of KCL was a consequence of government actions of compromise.

Ownership of the loader and the question of whether it would be a private or publicly owned facility led to the formation of two opposing factions. Proponents for a privately owned facility included PWCS, the TWU and mining companies. But government was under considerable pressure from another union faction as well as from within its own ranks (including, for example, the influence of the Deputy Premier Jack Ferguson), to proceed with a public utility. In order to appease all parties government's decision on ownership was essentially one of compromise. The loader would be neither a private nor public facility, but would be jointly owned by industry and government.

The ownership compromise did not, however, resolve the controversy of loader management and this question led to further pressures on government - thus some unions demanded the appointment of the MSB as operator, while the TWU would accept only the appointment of PWCS. Once again government itself was divided over the issue. The Premier was indecisive because any decision would inevitably be an unpopular one with one powerful faction or
another. The Deputy Premier and Minister for Public Works and Ports wanted a publicly operated loader. The MSB also favoured a public facility as the Board wanted to expand its interests in the port and wanted the control of the loader. While PWCS, which had the support of CSR, also wanted to control the loader - it was argued that if PWCS was the operator coordination of operations of the three loaders would be simplified.

In order to appease all factions, however, a further compromise decision by government was made - neither the MSB nor PWCS would be the loader operator and a third party, BHP, was appointed instead. The compromise decision and the appointment of BHP, while placating factional demands, effectively fragmented control of port operations.

Shareholding in the Kooragang Island loader, as in the case of PWCS, also showed a close correlation between corporate structures and mining interests (Table 6.7). While competition for the control of the loader had occurred between MSB and PWCS, the appointment of BHP enabled a resolution to the impasse which had occurred and allowed the loader construction to proceed. But BHP's actions were also determined by company interests as it had diversified its coal mining operations to include
### TABLE 6.7: Shareholders in Kooragang Coal Loader Ltd. - 1982

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<thead>
<tr>
<th>Company Ownership &amp; Structure</th>
<th>Collieries</th>
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<tr>
<td><strong>BHP Co. Ltd. (30%)</strong></td>
<td>John Darling</td>
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<tr>
<td></td>
<td>Lambton</td>
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<tr>
<td></td>
<td>Macquarie</td>
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<td></td>
<td>Saxonvale Opencut</td>
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<td></td>
<td>Stockton Borehole</td>
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<tr>
<td><strong>Newcastle Coal Shippers Ltd.</strong> (27.5%)</td>
<td>see Table 6.8</td>
</tr>
<tr>
<td><strong>MSB of NSW (20%)</strong></td>
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<tr>
<td><strong>Howard Smith Ltd. (12.5%)</strong></td>
<td>Aberdare North</td>
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<tr>
<td></td>
<td>Chain Valley</td>
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<td></td>
<td>Hunter Valley</td>
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<td></td>
<td>Liddell</td>
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<td></td>
<td>Mount Thorley</td>
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<tr>
<td></td>
<td>Preston Extended</td>
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<td></td>
<td>Stockrington No. 2</td>
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<tr>
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<td>Wallarah</td>
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<tr>
<td></td>
<td>Wallsend Borehole Opencut</td>
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<tr>
<td></td>
<td>West Wallsend No. 2</td>
</tr>
<tr>
<td><strong>Japanese interests (10%)</strong></td>
<td>See Table 6.9</td>
</tr>
</tbody>
</table>

**Source:**
Kooragang Coal Loader Limited, *Kooragang Island Coal Loader - Information Memorandum*, July 1982;

Joint Coal Board, *Black Coal in Australia*, 1982-83.
the export of coal and was now shipping both coking and thermal coal from its Lake Macquarie mines. In addition, the completion of the third loader and the expansion of port capacity had been a major factor in the development of the company's Saxonvale mine.

The participation of Howard Smith, the established shipping company which had acquired 12.5 percent equity in KCL, was also prompted by company interest. It had diversified its operations to include engineering, cement and steel, and had made a successful bid to expand its operations as a Hunter Valley coal exporter. By 1982 Howard Smith had increased its initial 27 percent equity in Coal & Allied to 50 percent and had acquired 67 percent shareholding in R.W. Miller operations (96).

Table 6.7 illustrates KCL's relatively simple ownership structure. Hunter Valley coal interests were represented in the guise of Newcastle Coal Shippers (NCS) (Table 6.8) in which all Hunter Valley coal exporters were participants. PWCS which had been specifically excluded from holding equity in KCL on the basis that it was not a coal shipper in its own right, also emerged as a shareholder in NCS and thus held equity in KCL.

The KCL shareholding indicates also a decline of Japanese investment in Newcastle's port facilities
### TABLE 6.8: Shareholders in Newcastle Coal Shippers Ltd. - 1982

<table>
<thead>
<tr>
<th>Company Ownership &amp; Structure</th>
<th>Collieries</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bayswater Nominees Pty. Ltd. (4%)</strong></td>
<td></td>
</tr>
<tr>
<td>* Caltex (49%)</td>
<td>Bayswater No. 2</td>
</tr>
<tr>
<td>* AMP (40%)</td>
<td></td>
</tr>
<tr>
<td>* Pioneer Sugar Mills (11%)</td>
<td></td>
</tr>
<tr>
<td><strong>Bloomfield Collieries (5%)</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bloomfield</td>
</tr>
<tr>
<td></td>
<td>Opencut</td>
</tr>
<tr>
<td><strong>BMI Mining Pty. Ltd. (1%)</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Buchanan Borehole Collieries Pty. Ltd. (10%)</strong></td>
<td></td>
</tr>
<tr>
<td>* CSR (100%)</td>
<td>Lemington No. 1</td>
</tr>
<tr>
<td></td>
<td>Lemington No. 2</td>
</tr>
<tr>
<td></td>
<td>Lemington Opencut</td>
</tr>
<tr>
<td><strong>Clutha Development Pty. Ltd. (8%)</strong></td>
<td></td>
</tr>
<tr>
<td>* BP (100%)</td>
<td>Foybrook No. 1</td>
</tr>
<tr>
<td></td>
<td>Foybrook Opencut</td>
</tr>
<tr>
<td></td>
<td>Howick</td>
</tr>
<tr>
<td></td>
<td>Pikes Gully</td>
</tr>
<tr>
<td><strong>Drayton Coal (10%)</strong></td>
<td></td>
</tr>
<tr>
<td>* CSR (49%)</td>
<td>Drayton</td>
</tr>
<tr>
<td>* Shell (39%)</td>
<td></td>
</tr>
<tr>
<td>* AMP (7%)</td>
<td></td>
</tr>
<tr>
<td>* Mitsui Mining (3%)</td>
<td></td>
</tr>
<tr>
<td>* Mitsui Coal (2%)</td>
<td></td>
</tr>
<tr>
<td>* Daesung (2.5%)</td>
<td></td>
</tr>
<tr>
<td>* Hyundai (2.5%)</td>
<td></td>
</tr>
<tr>
<td><strong>KCC (1%)</strong></td>
<td></td>
</tr>
<tr>
<td>* CRA (100%)</td>
<td></td>
</tr>
<tr>
<td><strong>Muswellbrook Coal Co. (3%)</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Muswellbrook No. 2</td>
</tr>
<tr>
<td></td>
<td>Muswellbrook Opencut</td>
</tr>
</tbody>
</table>
### Table 6.8 (Cont.):

<table>
<thead>
<tr>
<th>Company Ownership &amp; Structure</th>
<th>Collieries</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Newcastle Wallsend (5%)</strong></td>
<td></td>
</tr>
<tr>
<td>* Peko Wallsend (100%)</td>
<td>Pelton</td>
</tr>
<tr>
<td></td>
<td>Ellalong</td>
</tr>
<tr>
<td></td>
<td>Gretley</td>
</tr>
<tr>
<td><strong>PWCS (25%)</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Ulan Coal Mines (5%)</strong></td>
<td></td>
</tr>
<tr>
<td>* White Industries (60%)</td>
<td>Ulan No. 2</td>
</tr>
<tr>
<td>* Mitsubishi (40%)</td>
<td>Ulan Opencut</td>
</tr>
<tr>
<td><strong>United Collieries (1%)</strong></td>
<td></td>
</tr>
<tr>
<td>* Miners' Federation (50%)</td>
<td></td>
</tr>
<tr>
<td>* AGIP (Aust.) (30%)</td>
<td></td>
</tr>
<tr>
<td>* Wambo Mining (20%)</td>
<td></td>
</tr>
<tr>
<td><strong>Wambo Mining (2%)</strong></td>
<td>Wambo</td>
</tr>
<tr>
<td></td>
<td>Wambo Opencut</td>
</tr>
<tr>
<td><strong>Warkworth Coal (20%)</strong></td>
<td></td>
</tr>
<tr>
<td>* H.C. Sleigh (40%)</td>
<td>Warkworth No. 1</td>
</tr>
<tr>
<td>* Costain (35%)</td>
<td>Opencut</td>
</tr>
<tr>
<td>* T. &amp; G. (10%)</td>
<td></td>
</tr>
<tr>
<td>* Mitsubishi Dev. (11%)</td>
<td></td>
</tr>
<tr>
<td>* Mitsubishi Mining (4%)</td>
<td></td>
</tr>
</tbody>
</table>

**Source:** Kooragang Coal Loader Limited, *Kooragang Island Coal Loader - Information Memorandum*, July 1982.
from 30 percent in PWCS to 10 percent in KCL (Table 6.9). Newcastle's anarchical industrial record of the late 1970's and early 1980's and Government's protracted negotiations and indecision on the third loader had led to a loss of confidence in the Valley industry.

II: CHANGING ALLEGIANCES AND INTER-UNION RIVALRY: THE UNION RESPONSE

It is clear that the role of trade unions was extremely complex and perhaps the single most important determining factor in the government position of compromise. But what was the role of each individual union? Was union influence and power a product of cohesion and consensus? Or were union actions characterised by conflict and competition between opposing forces whose influence inhibited decisive action by government as any decision would be opposed by one or other union faction - a situation which led to a series of compromise decisions? And were union actions determined by altruistic beliefs and ideologically motivated? Or were they in reality strategies prompted by power struggles and driven by economic self interest?

Coal loader provision in the port of Newcastle clearly indicates that union cohesion was illusory; and that ideological commitments were discarded and
<table>
<thead>
<tr>
<th>Company</th>
<th>Shareholding in KCL (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Japan Coal Development Co. Ltd.</td>
<td>7.0</td>
</tr>
<tr>
<td>Mitsui &amp; Co. Ltd.</td>
<td>0.2</td>
</tr>
<tr>
<td>Mitsubishi Corporation</td>
<td>0.2</td>
</tr>
<tr>
<td>C. Itoh &amp; Co. Ltd.</td>
<td>0.2</td>
</tr>
<tr>
<td>Marubeni Corporation</td>
<td>0.2</td>
</tr>
<tr>
<td>Sumitomo Corporation</td>
<td>0.2</td>
</tr>
<tr>
<td>Nissho-Iwai Corporation</td>
<td>0.2</td>
</tr>
<tr>
<td>Toyo Menka Kaisha Ltd.</td>
<td>0.2</td>
</tr>
<tr>
<td>Kanematsu-Gosho Ltd.</td>
<td>0.2</td>
</tr>
<tr>
<td>Nichimen Corporation Limited</td>
<td>0.2</td>
</tr>
<tr>
<td>Tokyo Boeki Ltd.</td>
<td>0.2</td>
</tr>
<tr>
<td>Idemitsu Kosan Co. Ltd.</td>
<td>0.1</td>
</tr>
<tr>
<td>Nippon Oil Company Ltd.</td>
<td>0.1</td>
</tr>
<tr>
<td>Onoda Cement Co. Ltd.</td>
<td>0.1</td>
</tr>
<tr>
<td>Chichibu Cement Co. Ltd.</td>
<td>0.1</td>
</tr>
<tr>
<td>Mitsubishi Mining &amp; Cement Co. Ltd.</td>
<td>0.1</td>
</tr>
<tr>
<td>Sumitomo Cement Co. Ltd.</td>
<td>0.1</td>
</tr>
<tr>
<td>Osaka Cement Co. Ltd.</td>
<td>0.05</td>
</tr>
<tr>
<td>Tokuyama Soda Co. Ltd.</td>
<td>0.05</td>
</tr>
<tr>
<td>Ube Industries Ltd.</td>
<td>0.2</td>
</tr>
<tr>
<td>Nihon Cement Co. Ltd.</td>
<td>0.1</td>
</tr>
<tr>
<td></td>
<td>10.00</td>
</tr>
</tbody>
</table>

changes in allegiances occurred when adherence to an ideal threatened the interests of individual unions.

It is perhaps unrealistic to expect a high degree of cohesion within a labour market in which more than 30 different unions were engaged in the extraction, transportation, loading and shipping processes of coal. Nevertheless, despite the fragmentation and diversification of union activities, there was, at least outwardly, some cohesion and some desire on the part of unions to be seen to be acting in concert with the union movement generally.

The majority of trade unions engaged in the various mining and transport activities in the Hunter Valley coal chain, for example, were associated with the Newcastle Trades Hall Council (NTHC) which, not infrequently, univocally had made policy announcements on behalf of its members. The NTHC ostensibly supported Labor Party ideology and had traditionally been committed to public ownership of port facilities. In addition, individual unions generally aligned themselves with Labor party ideals indicating that public interest would be served with state ownership of port facilities.

It is apparent, however, that unions were content to follow NTHC policy and ALP aspirations if these were consistent with the self interest of unions
concerned. Changes in allegiances not infrequently occurred and a dissociation from Council policy often resulted in withdrawal of membership if that policy was seen to have adverse repercussions.

While the NTHC and its union members overtly supported public ownership on ideological grounds, a division in union ranks occurred and the TWU and the Miners' Federation dissociated themselves from the Council. Clearly, vested interests had precedence over ideals! While the TWU and the Miners' Federation had initially supported public ownership of ports, a change in allegiance occurred resulting in the support of a privately owned loader. The WWF (Cranes Branch) whose members were employed at the Carrington Basin loader, while ostensibly supporting ALP policy on public ownership, was also driven by the fact that its membership would be extended if the new loader was owned by the MSB. In addition, the union had expressed concern that the Basin loader would be bypassed if the new loader was privately owned, resulting in a loss of jobs.

The TWU, on the other hand, believed that private ownership would extend its membership, and the ambivalent position adopted by the Miners' Federation was one which would ensure maximum benefits for its members. Thus while a public facility was consistent with Federation principles,
delay of construction of that facility would be sufficient reason to abandon its principles and support Gollin’s bid.

The conflict between unions was not resolved until a compromise solution, acceptable to all factions, had been devised. Concern over job security of labour engaged at the Carrington Basin loader was alleviated as throughput would be not less than 5 million tonnes per year once the new loader was operational. Nor would the Basin loader be bypassed as the MSB would determine stemming for all loaders. The conflict over manning between the WWF (Cranes Branch) and the TWU was resolved with the compromise that employees at the receival and stockpile areas would be covered by the PWCS Industrial Agreement under the umbrella of the TWU, while the shiploaders would be leased to the MSB whose employees were covered by the WWF (Cranes Branch).

With the construction of the third loader inter-union conflict driven by self interest also occurred - initially over ownership of the loader but resolution would not be achieved until questions of who would operate and man the loader had also been addressed.

In the controversy over KCL ownership the AMWU and the WWF (Cranes Branch) had introduced a series of
rolling strikes in support of government ownership, while the TWU wanted PWCS to control and operate the facility – a move which would ensure extension of TWU membership. In addition, the TWU had imposed a ban on dredging operations and construction of the loader until the manning issue was resolved and the jobs of its members at PWCS were guaranteed. Both MSB unions and the TWU were concerned that both the Basin and Steelworks Channel loaders would be bypassed once the Kooragang Island facility was completed. The Miners’ Federation once again prevaricated – while supporting the concept of state ownership of port facilities, it had indicated that no dispute should be allowed to delay its construction.

The controversy over manning and union coverage was eventually resolved and a compromise solution was again devised which would satisfy, in part, all union interests, but which resulted in a rather complex industrial structure. Employees in the stockpile and receival areas would have AMWU and ETU coverage. Shiploader operators, being MSB employees were supplied from a labour pool and were members of the WWF. But in order to appease the TWU, half of those employed on the shiploader also had TWU coverage – the second lot of union dues paid by Kooragang Coal Ltd. In addition, administrative staff, although being employees of BHP, in order to
satisfy the government undertaking that the loader would be manned by 'traditional maritime unions' were, of necessity, members of the Maritime Services Board of NSW Clerical and General Officers Association.

CONCLUSION:
The provision of coal loading facilities in the port of Newcastle proved to be drawn out, highly politicised and marked by bitter conflicts. That the explanation of the process of infrastructure provision is not a simple one is abundantly clear from this chapter. Despite the complexity of events, however, the research has indicated that there are a number of discernible elements in the process of policy-making on infrastructure provision that underlie its explanation.

Firstly, the actions of governments were characterised essentially by ideological conflicts - in the case of the Steelworks Channel facility between the Federal ALP and the State Liberal/Country Party Coalition Governments. The Whitlam Government with its 'federalist' policies believed that export infrastructure should be owned and operated by the state, while the NSW Liberal Government promoted market-oriented policies and encouraged private provision of infrastructure. The
intergovernment conflict was exacerbated further by the fact that both Federal and State Governments had jurisdiction over different areas of the mining industry – providing the potential for further clashes. In the case of the Kooragang Island loader, however, government conflict occurred exclusively within the structure of the NSW government itself – the pragmatism of Premier Wran being opposed by more traditional ALP ideological factions, led by Ferguson.

Secondly, the public/private ownership debate prompted unions to align with ALP ideology. But when some unions found their viability threatened by their stance, changes and splits within the union movement occurred leading to further conflict and interunion rivalry.

Thirdly, mining companies generally were more concerned about the completion of the loading facilities and efficiency in operation, rather than with ownership *per se*. They did, however, insist that if the private sector funded infrastructure it would also control it. They saw efficiency as being derived from private ownership which sparked further conflict with Labor Government policies and unions which saw public ownership as appropriate. In the provision of the Steelworks Channel loader, especially after the collapse of the Whitlam
government, the mining companies were able to secure with relative ease private ownership and control of the facility. In the subsequent development of the Kooragang Island loader, however, the question of private versus public ownership led to a situation of compromise which resulted in joint government/industry ownership.

Clearly, the pattern of corporate linkages and development was fundamental in localising facilities adjacent to the Basin loader and in the Steelworks Channel. It was Gollin's early ownership of the Canwan stockpiles that focussed development into the Channel area; and subsequently the industry and PWCS sought to integrate the PWCS Channel operation with the Kooragang Island location. In the event the situation was not so simple.

Diverse and often opposing positions led to prolonged conflicts and delays. In fact, the Newcastle situation is characterised by the actions of a number of very influential government and union factions. Interestingly, it is precisely because of the balance of power which existed among these elements which led to a decision-making context characterised by stalemate, impasse and government inaction resulting in a loss of contracts and of extreme pressure on existing resources in a vital and important export market.
REFERENCES AND FOOTNOTES


7. Ibid.


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20. *Ibid*.


32. Port Waratah Coal Services Limited (undated), Coal from Newcastle.

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39. Ibid.


41. Ibid.

42. Ibid.


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47. Newcastle Morning Herald, 14.6.1975, p. 3.

48. Ibid.


53. CSR Minerals Division (1976), op.cit, p. 3.

54. Ibid.


59. Ibid.

60. Joint Coal Board, Black Coal in Australia, 1980/81 and 1981/82, Sydney.

61. Ibid.

62. Personal communication.

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64. Ibid, p.36.


66. Correspondence from the NSW Combined Colliery Proprietors' Association to NSW Premier, 27.2.1981.


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74. Ibid.

75. Ibid.


80. Ibid.
81. Ibid.
86. Personal communication, KCL.
87. Personal communication, KCL.
92. Coal Export Strategy Study (1979), op.cit., pp.72-76.
94. Ibid.
95. Coal Export Strategy Study (1979), op.cit., pp.72-76.
96. Ibid.
PART III: THE DYNAMICS OF POLICY IMPLEMENTATION
CHAPTER 7: IMPLEMENTING POLICY

In this final part of the thesis we focus more closely on the problem of implementation of policy, on the nature of the implementation process and on the implications of the process for the provision of transport infrastructure for export coal in NSW.

The chapter falls into three sections. The first focusses on the nature of the implementation process and examines a number of conceptual frameworks within which discussion of the process can proceed. In the second section some assessment of the way in which government policies for the provision of transport infrastructure in NSW have been implemented is made, based on three of the four case studies reported in Part II of the thesis. The third section provides a further case study but focusses specifically on the development of the Hunter Valley Coal Chain Council, a new and innovative element in the mechanism of policy implementation within the coal industry of NSW.
A: IMPLEMENTATION AS A POLITICAL PROCESS

I: CONSTRAINTS ON EFFECTIVE POLICY IMPLEMENTATION - SOME BACKGROUND COMMENTS

Governments are frequently unable to put their policies into effect as intended; or, in the implementation process the policy is modified or, in the extreme case, abandoned. Indeed, as Richardson and Jordan note (1) modern governments are becoming increasingly aware of the fact that the real test of power is not whether policy can be effectively formulated but whether or not they can get their policies implemented.

Where does the process go wrong? What are the impediments to smooth policy implementation? And why is it that for some policies the process is simple and effective, for others difficult?

Barrett and Fudge (2) suggest that the blame tends to be directed "... either at those responsible for policy-making for constantly producing the 'wrong' policies or at the implementation agencies for being unable or unwilling to act". But deficiencies in implementation, as Spann (3) argues, can often be traced back wholly or in part to the policies themselves. Some are less practicable than others, so a failure in execution really represents a failure in policy-making. Others may have been drawn up in ignorance of the problems to be solved.
or the situation to be changed, or without regard to available resources; and some may be 'symbolic' gestures only and, not surprisingly, a large number of these fail to be acted upon. Thus, Barrett and Hill (4) point out that in some circumstances it is politically expedient for politicians to appear to favour certain ideals or goals while in actuality doing little or nothing to put them into practice.

Failure to implement policy may, also, be a feature of the administrative system itself so that, as Barrett and Hill (5) again point out, "any system in which policy-making and implementation are clearly separated between the legislature and executive, or by a division between different levels of government, provide opportunities for implementation problems".

A further impediment to smooth policy implementation may be encountered because governments, not infrequently, fail to make available sufficient resources to enable completion of a policy. This may be due simply to lack of resources but, as Richardson and Jordan (6) argue, may in fact be part of a strategy to spread resources thinly in order to favour schemes which have the potential to benefit, or are seen to benefit several areas rather than concentrate resources on one project. They point out that the political benefits are greater to
government if it spreads resources around even though this might undermine individual programmes. The consequence of this strategy is that implementation may be extended over a prolonged period of time and a stated policy may never come to fruition. It may indeed become 'distorted' because policy content is not adjusted to meet changing requirements.

Certainly, effective implementation will be constrained by the pattern of power linkages that exist among different groups. Thus, Hogwood and Gunn (7) point out, if "implementation of a policy is carefully planned in terms of appropriate organisation, procedures, management, and influences on behaviour, but if it takes insufficient account of the realities of power (e.g., the ability of groups opposed to the policy to block efforts of its supporters) then the policy is unlikely to succeed".

Pressman and Wildavsky (8) argue therefore that the value of a policy must be measured not only in terms of its appeal but also in the light of its implementability. They point out that in order to close the apparent gap between policy implementation and policy formulation, it is essential "to make the difficulties of implementation an integral part of the initial formulation of policy" - implementation, they argue, "must not be conceived
as a process that takes place after and independent of the design of policy" (9).

This may not, of course, be without its problems because constraints may not emerge in the early stages of formulation. Barrett and Hill (10), for example, point out that policy, as a framework for action, is only really created during the implementation process. Definitions of specific policies, they argue, tend to emerge from the initial policy formulation stage as complex and ambiguous. Frequently initial plans are tentative and may be subject to further transformation as they are translated into action. During this policy design/action interim period interests and pressures may change in relation to changing circumstances, and Barrett and Fudge (11) point out that it may be difficult therefore to identify, in the initial stages, possible policy constraints.

The implementation process, and the 'real world' constraints in executing policy programmes, are clearly complex and require closer examination. We turn, therefore, in the next section to examine some alternative conceptual frameworks for analysis.
A Hierarchically Ordered Process?

Traditionally, and following the Weberian model, policy-making has been viewed as an hierarchically ordered process divided into two distinct, though interdependent stages. Policy was seen to be decided by politicians and implementation - the transmission of policy into a series of consequential actions - was undertaken by a politically neutral bureaucracy whose functions were essentially technical and administrative.

This model might be applicable to the most fundamental and uncomplicated of policy decisions, but certainly is simplistic and inappropriate to explain the complexities of decision-making processes, such as those under investigation, and indeed any other issue steeped in controversy which is resolved by political means. The hierarchical model does not incorporate, for example, the fact that the bureaucracy does not merely undertake implementation procedures handed down by politicians but is in fact active in initiating policy; and, as Majone and Wildavsky (12) suggest, "reformulate as well as carry out policies" - implementation, they argue, "does not assume a fully articulated policy decision - rather it creates and recreates".
Nor is there any allowance in the model for political action, for bargaining and negotiation procedures, for conflict between policy designers and implementers, for public participation—though Wood (13) points out that even in a rational/hierarchical paradigm the public does exert some influence by way of the electoral process.

A Conflict Framework

The rational decision-making model and the Weberian ideas about hierarchical organisation and management are inappropriate explanatory mechanisms for the complexities of real world policy decisions. The case studies indicate a conflict-ridden, highly politicised process which is not explicable in terms of simplistic decision-making models. It is evident that, in the real world, 'conflict' and 'power struggles' abound in all but the simplest policy decisions, and indeed are fundamental elements and determining factors in more complex controversial policy processes. It is specifically the emergence of 'conflict' and its incompatibility with the rational paradigm which has led to a rejection of traditional views and the development of a more appropriate theoretical model which can accommodate concepts such as 'conflict' and 'power'.

The notion of 'conflict' has been widely dealt with in the social science and geographic literature, as
we have noted in Chapter 1. But often it is seen as a deviation from normative rational assumptions, something that occurs as a random, unusual event rather than as a 'normal' part of the policy formulation and implementation processes. It is this too-narrow focus on conflict per se rather than on the policy process in toto which has led to less than adequate explanation of spatial change.

Wood (14) points out that conflict occurs as a result of insufficient public participation in planning processes. Increased provision for citizen input, he argues, must be made in order to avoid prolonged and stressful conflict. He indicates that public participation will not eliminate but mitigate conflict. Wood's prescription will, in fact, bring the process closer to the tenets of the rational paradigm!

Implementation - a Political Process

For some researchers (Wood, for example), there has been the assumption that once conflicts were resolved, implementation generally followed - that conflict was essentially a reactionary response to policy content. Increasingly, however, it has been recognised that the problem of implementing policy is a political rather than a managerial process and that implementation is also subject to pressure group demands.
Pressman and Wildavsky (15) were among the early researchers to emphasise that implementation was an inherently political process and established a detailed analytical model which underlined a number of fundamental principles. They define 'policy' as a "hypothesis containing initial conditions and predicted consequences - a statement of the type if X is done at time T₁ then Y will result at time T₂". In this context implementation constitutes the ability to achieve predicted consequences after initial conditions have been met. Implementation, they argue, does not create the initial conditions - some antecedent conditions or statement of intentions, a policy, must exist before implementation takes place (16). Every policy thus incorporates a theory of cause and effect.

The authors suggest that policies, or hypotheses, are converted into action with the development of a 'programme' - that is when planning is carried out and initial decisions about the choice of actions are made. They indicate that the policy process is analogous to a chain of causation between initial conditions and future consequences. Programmes operationalise policies by forging the first link in the causal chain. Implementation is the forging of subsequent links in order to obtain the desired results (17). The longer the chain of causality,
the more numerous the reciprocal relationships among the links and the more complex implementation becomes (18).

Further, Pressman and Wildavsky introduce the notion of 'decision points' and 'clearances'. A 'decision point' is one that occurs when "an act of agreement must be registered in order for the programme to proceed". A 'clearance' is each instance during implementation which requires participants' consent before the process can proceed (19). The authors point out that the greater the number of decision points involved and clearances required, the greater the complexity of the process and the less likelihood that the programme will achieve its objectives.

For programmes to succeed, they argue, agreement is needed at numerous decision points. In the real world the chance of agreement being reached all along the line is rather small, yet if programmes are to succeed the incidence of agreement must be high (20). The authors argue that in order to reduce the possibility of failure, it is essential for programmes to be relatively simple involving few decision points and clearances and incorporating anticipated difficulties of implementation as "part of the initial policy formulation" (21). They point out, however, that this in itself is problematic as
the distinction between policy formulation and implementation becomes difficult to maintain. Circumstances change, goals alter, initial conditions are subject to slippage and the distinction between initial conditions and the subsequent chain of causality begins to erode (22).

Majone and Wildavsky (23) also point out the difficulties associated with the prediction of anticipated obstacles and possible problems as many, perhaps most, constraints actually "remain hidden in the planning stage and are only discovered during the implementation process". Anticipating likely constraints may not be feasible in any event, because as Barrett and Fudge indicate, implementation of much public policy is dependent upon action by groups that are relatively autonomous and not subject to the direct authority of those making policy (24). That certainly is a valid comment but the point that Pressman and Wildavsky make is not that policy-makers can determine and, in a sense orchestrate or control pressure group responses, but that they attempt to anticipate what those responses are likely to be and consider these, or as many as can be identified, when planning is carried out. It is not possible to anticipate all 'negotiable' issues as these often do not arise until implementation is commenced, or at least until the final stages of planning. But the empirical
studies carried out indicated that many major implementation problems arose which, with some anticipation by the policy-makers and discussion with groups likely to be involved, could have been foreseen and avoided. It is apparent that many policy decisions are unacceptable to factions with the influence and power to effectively prevent them from being implemented, and these are the areas Pressman and Wildavsky would recommend be investigated and incorporated, wherever possible, into the policy design.

**Mutual Adjustment and the Bargaining Process**

While Pressman and Wildavsky have investigated implementation as a political process, and its role in the policy-making structure, Barrett and Fudge (25) have looked specifically at the mechanism of implementation. They argue that in order to understand the relationship between policy and implementation an 'action' perspective is required - that is, one that sees the relationship in the context of the groups or actors involved, the agencies within which they operate, and the factors which influence their behaviour. The focus of attention in policy analysis thus shifts from policy content to the actual implementation process and an investigation of the organisations or groups involved. This technique incorporates the manner in which goals and priorities are arrived at,
bargaining procedures, and an analysis of the interests being promoted or protected by the factions involved.

From an 'action' perspective, Barrett and Fudge argue further that implementation may be regarded as a series of responses to various pressures - to ideological or environmental pressures, for example, or to pressures from other agencies or groups seeking to influence or control action. They point out that these responses may influence and change initial policy, particularly in those cases where cooperation and compliance can only be achieved by negotiation and bargaining.

Elmore (26) also argues that understanding implementation problems requires an understanding of the organisations within which decisions are made. His Conflict and Bargaining Model explores the role of organisations and specifically the mechanism of conflict and bargaining strategies. Implementation, he argues, consists of a series of "bargained decisions reflecting the preferences and resources of participants" and is "characterised by constant conflict over purposes and results and by the pursuit of relative advantage through the use of bargaining" (27).
Bargaining, he suggests, can be explicit or tacit and frequently occurs without direct communication and with an imperfect understanding by each party of the others' motives and resources. In this context implementation becomes essentially a series of strategic moves by a number of vested interest groups, each seeking to shape the behaviour of others to their own ends (28).

The Conflict and Bargaining Model, Elmore argues, "permits us to make conceptual sense of the implementation process without assuming the existence of hierarchical control, without asserting that participants' behaviour is governed by a predictable set of bureaucratic routines and without assuming that concerted action can proceed only from agreement and commitment to a common set of purposes" (29).

This means that the aim of the bargaining process is not necessarily reaching agreement among participants on policy goals. Rather the focus is on compromise and consensus seeking behaviour - consensus that is not necessarily an agreement on policy goals, but a commitment that the bargaining process must be maintained. Elmore argues that goal agreement among participants is not essential but that the important, indeed, the vital factor, is the perpetuation of the bargaining process itself.
This position poses a number of organisational and analytical problems, however. If the policy process is not hierarchically oriented and if agreement of goals is not essential, is the process then not unstructured and, indeed, 'anarchical'? And how does any semblance of integration and coordination among participants occur?

Lindblom (30), in introducing the concept of 'partisan mutual adjustment', argues that "people can coordinate with each other in the absence of an overriding coordinator, without a dominant common purpose and without rules that fully prescribe their relations to each other". He points to the analogous situation where "masses of pedestrians cross an intersection against each other and will slip through each other, each pedestrian making such threatening, adaptive or deferential moves as will permit him/her to cross, despite the numbers of bodies apparently in the way". Similarly, Lindblom argues, the representatives of a dozen unions and the management of an enterprise can coordinate with each other on wages and working conditions through negotiations (31).

In a mutually adjusted process, Lindblom points out, no decision maker acknowledges a supervisory responsibility (32) and all participants adjust and
readjust their positions in order to gain advantage to serve self interests and not to orchestrate the process from an hierarchical perspective. He defines all mutually adjusting participants in decision-making as partisan and indicates that a partisan decision-maker is one who bargains and makes decisions calculated to serve his own goals - not goals presumably shared by all other decision-makers with whom he is interdependent (33).

Moreover, as Elmore also points out, the mechanism of bargaining does not lead teleologically from a single purpose to a pre-determined result (34) - rather the outcome is the product of the negotiating process. In addition, he suggests the negotiated result is seldom optimal in any objective sense and some, possibly all, parties may leave the bargaining process dissatisfied. He points out, though, that "all solutions are temporary and as long as the potential to resume bargaining remains, improved conditions and relative advantage can continue to be pursued" (35).

The 'Success' or 'Failure' of Policy

We have argued, thus far, that implementation is the outcome of a bargaining process and requires compromise and agreement between groups. Clearly this leads to problems in assessing the adequacy, or otherwise, of success and failure of the process. A
comparison of initial goals and end results, for example, would be inappropriate as all normative judgments would simply be assertions of relative advantages in the bargaining process (36).

If implementation is defined as 'putting policy into effect' — that is, action in conformance with policy — then compromise will be seen as policy failure. But if implementation is regarded as 'getting something done', then performance rather than conformance is the central objective, and compromise a means of achieving performance, albeit at the expense of some original intentions (37). In addition, if policy is modified as a result of bargaining and negotiation, then how can conformance or compliance be judged? What may appear to be failure in the policy-makers' terms may be regarded as success by the implementing agencies (38).

Success or failure of implementation, Elmore argues, is primarily a relative notion and is based solely on the participants' position in the bargaining process. Actors who are capable of asserting their purpose over others, however temporary the position may be, will argue that the process is successful, and those with a disadvantage in the bargaining process will argue that it is unsuccessful (39). And as relative positions in the power game change,
notions of success and failure also change accordingly.

Furthermore, Elmore (40) argues, it is possible for the process to proceed even when all actors regard it as unsuccessful - when there is no or little prospect of any participant gaining benefit. In this instance the costs of refusing to bargain may exceed the costs of remaining in a disadvantageous bargaining relationship. Under these circumstances the only objective measure of success or failure is the bargaining process itself. So long as all parties agree to negotiate, preservation of the bargaining arena itself constitutes success.

Thus, the policy process breaks down not when a temporary deadlock develops as a result of a balance of factional power, or when a minority group can effectively manipulate the bargaining process to serve its needs; rather, breakdown occurs when participants discontinue negotiation procedures and all bargaining strategies cease.

PART B: THE IMPLEMENTATION OF TRANSPORT INFRASTRUCTURE POLICY IN NSW: SOME FUNDAMENTAL CHARACTERISTICS

To what extent does the implementation of policy related to transport infrastructure provision for export coal conform to some of the basic principles
noted in the preceding discussion? Who were the power brokers? What was the basis of conflict? What were the underlying mechanisms of the implementation process? In this section we focus on these questions by reviewing the nature of the implementation process as it has emerged in three of the four case studies which make up Part II of this thesis.

CASE STUDY I: IMPLEMENTING A PROMISE TO EQUALISE FREIGHT RATES (Chapter 4)

The promise of a freight subsidy for Western producers was, in effect, a *quid pro quo* for the abandonment of the coal loader at Botany Bay. It was a compensation for the location of the new coal loading facilities at Port Kembla which entailed longer haulage distances and turnaround times of coal trains and consequently considerably higher freight charges. Under the conditions of the Western Freight Equalisation Scheme, Western coal exporters were given priority loading at the Balmain coal loader and when their exports exceeded Balmain’s capacity, the overspill would be railed to the new Port Kembla coal loader. Despite the longer rail distances, the Western producers would not be disadvantaged as freight rates to Port Kembla would be identical with those charged to Balmain.
This promise was part of an election strategy to win the seat of Blue Mountains. But as Painter (41) has indicated, election promises and election platforms are 'veritable grab bags of opportunism' which Barrett and Hill (42) point out are difficult to implement, particularly in a system in which policy formulation and implementation responsibilities are clearly separated between the legislature and the executive.

State Government, in this instance, was unwilling to carry out its promise and when action was eventually taken to implement the policy, it was not in order to honour an election promise per se, but in response to further pressure from additional sources. Failure by the highly fragmented bureaucracy to reach agreement on policy priorities in this instance, also impeded implementation processes, and consensus could not be reached by administrative executives each pursuing policies essentially to serve departmental, rather than broader based government, interests.

Problems associated with the implementation of the Western Freight Equalisation Scheme fundamentally centred on two basic issues. First, it focussed on the introduction of the freight subsidy which ensured that the rail freight rates from Western export mines would be identical, irrespective of
export outlet - Balmain or Port Kembla. This move had been opposed by the NSW Treasury, the organisation which was to finance the programme.

Second, the decision entailed the upgrading of the Balmain coal loader. This move had created further conflicts within the public sector for although the Treasury had promoted Balmain's upgrading, as an increase in Balmain throughput would reduce the burden of the freight subsidy, it had been opposed by the SPCC on environmental grounds. Also the MSB had argued against the prospect as it placed the responsibility for upgrading the facility with the Board at a time when it was contemplating its closure. Yet for government itself, the continued operation of Balmain was essential because it was the basis upon which equalised freight rates would rest.

Government Inaction and the Basis for Conflict

Government failure to act on the promised rail freight subsidy created disharmony within the mining sector, particularly following the decline in global coal markets. Mine closures, and indeed the survival of Burragorang Valley and some Western coal mines had come under threat by the continued high transport charges. When State Government, after sustained attack, did introduce the freight subsidy in 1984, it was not in order to honour its 1976
election promise, but in response to pressures from other sources. The subsidy, in fact, became part of a $30 million a year incentive package designed to keep the coal industry viable and to help it over a difficult period and maintain employment levels.

Who Were the Power Brokers?

In the conflict which would lead to the reduction in freight rates and perhaps maintain the viability of the coal mining industry, what were the positions of the numerous vested interest groups? And what pressures would eventually lead government to introduce the much promised rail freight subsidy?

The mining companies, faced with increasing costs and fewer and more competitive export markets, exerted pressure on the NSW Government to reduce its transport charges in general, and implement the promised freight subsidy in particular. The companies' move followed the decline in production in most Burragorang Valley and some Western mines as a downturn in the world steel industry had created a global glut of both thermal and coking coals. The problems had been intensified as congestion at NSW ports had led to high demurrage costs and the imposition of export quotas. And the continued and increasing competition from Queensland and overseas producers had prompted coal companies into action.
Coal miners, mining communities and trade unions, such as the Miners’ Federation, following the closure of Burragorang Valley mines and threatened closure of Western collieries, supported the industry campaign. Their stake in the matter concerned continued employment and survival of the industry.

Opposition to the introduction of the Western Freight Equalisation Scheme and obstacles to its implementation arose from within government circles itself. The Treasury, as already noted, opposed its introduction on the basis that it carried the financial burden of the Scheme and argued that greater utilisation should be made of the Balmain loader. The Ministry of Transport also called for increased Balmain throughput thereby reducing the financial burden of the freight subsidy.

Public sector opposition was not aimed exclusively at the freight subsidy but also at the related continued operation of the Balmain coal loader. The SPCC opposed any continued use of the facility and argued that it should be phased out and all export coal channelled through Port Kembla. The MSB also resisted the continued operation of its Balmain loader, in particular after large deficits were incurred by the Board at its Port Kembla facility where actual performance had failed to meet
projected throughput. The MSB, experiencing difficulties maintaining two coal loaders, believed that if the Balmain facility ceased operation and Port Kembla throughput was increased by channelling through it all Western, Southwestern and Southern coal, the Board's deficit would thereby be reduced.

CASE STUDY II: IMPLEMENTING GOVERNMENT POLICY TO PROVIDE RAIL LINKS TO THE PORT KEMBLA COAL LOADER (Chapter 5)

The government decision to construct a railway line from the Burragorang Valley to the newly developed Port Kembla coal loader was an inherently political one and part of an electoral strategy not to proceed with the development of Botany Bay as the export outlet for Burragorang Valley and Western coal. It was a quid pro quo for the loss of easy and direct access to a coal loading facility at Botany Bay. It also was an attempt to appease concern in the Illawarra and to demonstrate to residents that the development of Port Kembla as the major outlet for Southern, Southwestern and Western coal would not intensify an already serious coal transport problem.

But the policy itself failed to be realised; it was essentially a political and symbolic gesture which, Barrett and Hill (43) note, generate problems and impediments to implementation and makes any form of coordinated and integrated planning virtually
impossible. Our study suggests that one part of a policy programme was extracted from its context and a decision made in isolation and independent of related requirements. Furthermore, it created tensions between the political and administrative arms of governments and conflicts of interests emerged concerning the suitability and desirability of the decision.

In this instance implementation was obstructed because agreement could not be reached between the political and bureaucratic sectors, or indeed between the various agencies within the bureaucracy itself. Government was committed to a particular policy but failed to allocate necessary resources to carry out the programme.

Inaction was tacitly supported, in a sense, by a bureaucracy which itself was divided over the issue and failure to reach agreement over policy objectives was reflected in the inability to implement any policy. Investigations carried out on behalf of the PWD, for example, supported government reluctance to proceed with development, indicating that new rail infrastructure was not necessary for Stage 1 of the loader. Rather it had recommended the upgrading of the existing facilities. The SRA subsequently considered that it could carry all export coal on existing infrastructure and had
indicated that upgrading of the existing rail net was not required. The DEP, on the other hand, pushed for the development of the railway network indicating that the establishment of new mines depended on the availability of rail access. And Treasury was unable or unwilling to allocate resources which would enable completion of the project.

Failure to implement this policy was a consequence of political decision-making which led to problems of coordinating and integrating the decision into a policy programme, and the inability, subsequently, for agreement on priorities to be reached. But what implications did government’s inaction on infrastructure development have on modal policy? It, in fact, created a spate of further problems for although the railway proposal had been abandoned, government nevertheless continued with its restricted road haulage policy. The onus for removing coal from public roads was now placed upon the coal companies. But this was to have serious implications for the mining sector and implementation of this policy became, as Elmore (44) indicates, a highly politicised bargained process. The options proposed by the companies became the subject of intense lobbying - some factions promoted coal on rail policies; others pushed for continued road haulage; and some groups opposed, on
environmental grounds, the means by which the transfer to rail would be executed.

What Was the Basis for Conflict?
The essential basis for conflict centred on the policy to restrict road haulage of coal and the means by which it was to be achieved. The policy threatened the continued viability of some Burragorang Valley and Southern export mines; it would reduce considerably employment numbers in the road haulage industry; and it involved the construction of an overhead rail loading silo which residents in areas adjacent to the proposed location opposed on environmental grounds.

The Elements of Power
The transfer of Burragorang Valley coal to rail was opposed by Clutha on the basis that the company could not carry additional transport costs which, if introduced, threatened the continued existence of marginally profitable mines.

Trucking interests lobbied against the restriction of road haulage as the mandatory transfer to rail would eliminate drivers' jobs. Opposition to government policy also emerged from Burragorang Valley miners for under government's transport policy no new mines were permitted to open west of
the escarpment unless linked to rail - thus there was little prospect for expansion.

The alternative, however, of constructing a heavy freight road was opposed by railway unions as the abolition of road haulage would generate growth in the rail sector. The Wollongong Council opposed the heavy freight road option on the basis that it wanted coal removed from all roads. And government refused permission for the construction to be carried out - ostensibly on the basis that it was inconsistent with its modal policy objectives.

Power Relationships and the Power Base

Implementation of government’s restricted road haulage policy required a number of decisions to be made in which numerous participants had a stake. The process exemplified Pressman and Wildavsky’s (45) concept of ‘decision points and clearances’ - where success in implementing a policy is inversely related to the number of decisions required to be made and the numbers of participants and power bases involved.

The decisions included, *inter alia*, the transfer of Burragorang Valley and South Bulli coal to rail; the construction of an overhead loading bin at Bellambi; and a decision on whether or not the F5 1/2 would proceed. These necessarily entailed assessment and
further decisions on the repercussions on the Clutha company, for example, and on the estimated continued viability of Burrarorang Valley and South Bulli mines.

But perhaps more importantly, implementation required clearances at numerous points by a multitude of powerful vested interest groups and it was at this stage that the process failed.

Though action by the groups involved was motivated by different concerns, it was their combined efforts which effectively prevented the successful implementation of government’s rail haulage policy. Powerful alliances, which were to effectively impede the implementation process, were formed between residents opposing the Bellambi bin construction and the TWU, and some groups, though few in numbers, were able to exert considerable political clout. The TWU, for example, whose agreement was essential if South Bulli coal was to be transferred to rail, possessed the power which it, in fact, exerted to halt the development of the overhead loading bin. Construction of this facility was not possible without the cooperation and agreement of the Union. But the transfer of South Bulli coal to rail depended on TWU cooperation and was not possible if construction of the silo did not proceed. The Union failed to cooperate at this particular ‘clearance
point' and the ban subsequently imposed on the construction of the facility effectively prevented implementation from being realised.

CASE STUDY III: IMPLEMENTING A POLICY TO CONSTRUCT PORT FACILITIES IN NEWCASTLE (Chapter 6)

Problems associated with the implementation of Newcastle's coal loading facilities centred fundamentally on the question of ownership of port facilities - whether or not they should be publicly or privately owned. Agreement could not be reached among a number of powerful opposing factions, and until this controversy was resolved implementation could not be carried out.

Powerful factions dominant in the ownership conflict of Newcastle's second coal loader occurred at government level - state and federal - and was exacerbated because jurisdiction over different areas of mining operations and provision of infrastructure development was fragmented and divided between a number of Federal and State Government instrumentalities.

In the ownership debate concerning Newcastle's second coal loader, inter-government conflict and delays in implementation occurred because of the incompatibility between Federal and State Government
policies. Although the Federal Labor Government could not effectively alter the State Government decision permitting a private company to develop a coal loader in the Steelworks Channel, it could and, in fact, did create considerable delays by withholding permission for that company to borrow overseas funds necessary for the loader construction.

What Was the Basis for Conflict?

Up to the mid-1970's the NSW State Liberal Government had promoted a *laissez-faire* investment policy and had granted permission for Gollin to construct a coal loading facility in the port of Newcastle. Opposition on ideological grounds to the private ownership of port facilities had emerged from Federal Government circles. The NSW Government policy was inconsistent with Federal Government plans for the establishment of a national energy self sufficiency programme in which the Federal Government would undertake, either solely or in conjunction with the state, the development and control of coal export facilities. To this end the Federal Government had made the offer to finance the loader on the condition, of course, that it would either have exclusive control of its operation or operate it jointly with the State Government.
State Government rejection of the offer on the basis that it wanted to continue to promote a policy whereby the private sector would continue to own and operate port operations, led to problems associated with carrying out port development plans. Considerable delays in implementation occurred because of the inability of two governments to reach agreement. The NSW Government refused to relinquish control of NSW ports to the Federal Government which, in retaliation withheld permission for Gollin to borrow necessary funds overseas.

The Federal Government stance initially had large scale trade union support. The unions opposed, in principle, the private ownership of coal loaders. They also envisaged the possibility that the new loader, if privately owned, would operate in competition with the existing facility thereby threatening the continued viability of the Carrington Basin loader and leading possibly to its closure and a consequent loss of jobs.

Changing Alliances

But a change in union alliance and a division within the trade union ranks prolonged still further the implementation processes. Unions likely to be adversely affected by further delays in loader construction adopted a more conciliatory position and began to oppose the Federal Government stance.
The Miners’ Federation, for example, prompted by concern that unless the second loader was completed coal export quotas would be imposed, considered that unless the conflict between the Federal and State Governments was resolved, Gollin should be permitted to implement its plans. The TWU also began to lobby for private ownership. The Union already had coverage at the Canwan stockpiles and believed that this would be extended to the new loader employees if Gollin was permitted to undertake the programme.

Successful implementation was effectively delayed by the actions of pressure groups. The Federal Government continued to withhold permission for Gollin to raise necessary finance and the State Government continued to refuse Federal Government the right to participate, in any way, in development and control of NSW ports. This impasse was not resolved until Federal Government withdrew its offer to take control of NSW ports and Gollin was granted permission to raise overseas funds.

Newcastle’s Third Loader

Implementation of the proposal to construct Newcastle’s third loader was also delayed as conflict once again arose over the ownership issue. This time, however, agreement could not be reached between opposing factions within the NSW State Government. A strong traditional left wing faction
of the NSW Labor Party continued to promote public ownership of all port facilities while the more pragmatic Premier favoured a policy of private ownership. In this instance conflict also arose between pressure groups and the formation of powerful alliances led to an inability to reach agreement which delayed the completion of the facility.

What Was the Basis of Conflicting Positions?

Newcastle coal shippers were in favour of private ownership of the third loader and the NSW Combined Colliery Proprietors' Association had argued that in order to gain maximum efficiency the new loader should be fully integrated with the existing Steelworks Channel and Carrington Basin loaders. The Association had pointed out that this could be achieved most effectively if PWCS, the operator of the Steelworks Channel facility, was to have the responsibility for the planning, design, construction and operation of the loader. PWCS had agreed with this suggestion indicating that the Newcastle coal loading system would then become fully coordinated and integrated.

The position of the NSW Labor Government suggested some considerable ideological changes since the Whitlam government. Though some traditional but very powerful, factions within the Labor Party
continued to promote a policy of public ownership of ports, the Premier indicated that coal companies would have to pay for infrastructure development. Thus the NSW Government sector itself was divided over the issue.

The position of the NTHC also had mellowed somewhat and indeed had recommended that rather than the facility be constructed by either the public or private sector, it should, in fact, be developed as a joint government/industry venture.

Once again trade unions opposed the private ownership of the loader, and indeed joint ownership, and the AMWU and WWF (Cranes Branch) called for State Government ownership and the MSB appointment as the operator of the facility. These unions had a vested interest to protect as they were engaged at the Carrington Basin loader. Their concern centred on job security and the possibility that the Basin loader could be phased out once the new Kooragang Island loader became operational and the proposed PWCS expansion was completed.

A trade union ban subsequently imposed on the construction of the loader pending satisfactory resolution of issues such as the future of the Carrington Basin loader and the continuity of jobs
effectively prevented implementation from proceeding.

A stalemate once again developed - government was in a particularly sensitive position and unwilling to make a decision on ownership. If it permitted the private sector to construct the facility then the work would be banned by some unions. This would have a flow-on effect and delay the opening of new mines in the Hunter Valley and undermine further the confidence of overseas buyers in Newcastle's port operations. If it decided, on the other hand, that the loader should be developed by the MSB then other unions would ban its construction. In addition, problems of coordinating the three loader operations would likely occur and, perhaps more importantly, government would have to pay for the facility itself. Though the mining companies had agreed to pay for the loader construction, they had agreed to do so only on the condition that it be owned and operated by PWCS.

A resolution could not be reached, however, because government itself was indecisive and, indeed, divided over the issue. While the Premier favoured private ownership the Deputy Premier and Minister for Public Works and Ports was committed to public ownership. The issue could not be resolved until a compromise had, in fact, been reached - the loader
would be neither publicly nor privately owned but would be a joint venture between industry and government interests. In addition, neither PWCS nor the MSB would operate the facility; rather this function was to be carried out by a third party - BHP.

FAILURE TO IDENTIFY POTENTIAL CONFLICT... - THE FUNDAMENTAL IMPLEMENTATION PROBLEM?

Clearly, in none of our case studies was implementation of policy a smooth process. Why not?

We argue, like Spann (46) that reasons for the failure to effect implementation can invariably be traced back to the policies themselves and a failure in execution in fact represents a failure in the process of policy-making. Decisions are made, not infrequently, without taking into consideration the reactions likely to be evoked and with little, if any, negotiation with interests likely to be affected. In addition, there is often little opportunity for input until a formal hearing is held after decisions have been made and implementation is ready to proceed.

Any effort to improve the implementation process should not attempt to adjust the policy process to emulate the tenets of the rational ideal. As
Lindblom (47) suggests, any improvement in the policy-making process does not mean abandoning the concept of incrementalism and the striving for agreement by way of mutually adjusted decisions and the emulation of an unattainable ideal. It does mean, however, practising the policy-making techniques more skilfully — by identifying, for example, conflicts likely to be encountered once action is taken.

Although it is apparent that the anticipation of all obstacles likely to arise during the policy process would be difficult indeed, nevertheless if the disruptions and interruptions are to be minimised then, as Pressman and Wildavsky (48) indicate, it is essential to make likely difficulties of implementation an integral part of the initial formulation process.

If, however, agreement and consensus on policy issues cannot be reached and if problems of implementing a controversial policy are to be reduced, then it becomes essential that a compromise is reached. To this end a new and innovative element in the mechanism of policy-making has emerged in the Hunter Valley with the specific purpose of preventing or minimising difficulties associated with implementing policies. It is a consultative mechanism which aims at reaching
solutions to policy problems and the prevention of prolonged and disruptive delays by way of negotiation and discussion, rather than the customary confrontational approaches described in Chapter 6.

In the next section we will discuss the establishment of the mechanism, the historical context within which it arose and, though an assessment of its success or otherwise cannot as yet be made, the anticipated benefits of the development.

PART C: SMOOTHING IMPLEMENTATION: THE HUNTER VALLEY COAL CHAIN COUNCIL

Coal mining and export development in the Hunter Valley has been characterised, for a decade or more, by continued and severe industrial disruption; a highly fragmented industry operation which has constrained development and resulted in a failure to meet contractual obligations; and a highly factionalised coal chain system and non-cooperative and confrontationist problem solving approaches which have led to lengthy delays in the opening of new mining developments, a breakdown in the transport system, loss of contracts and serious coal transport problems generally.
A new approach, the establishment of the Hunter Valley Coal Chain Council, recognising that conflicts of interests are inherent in the policy process, has led to the development of a problem solving mechanism in which voluntary cooperation between opposing factions is actively sought and where the emphasis is on the positive inputs of negotiation and consensus seeking, rather than on the negative elements of confrontation and hostility.

The scheme has been established since mid-1985 and although on several occasions, has been near collapse when participants have threatened to withdraw membership, it nevertheless remains in operation.

An objective assessment of the success or otherwise of the scheme is rather difficult because of its relative recency; and the essentially relative notions of success and failure. If as already noted, success is assessed primarily on policy content - that is according to rationalist criteria by measuring and comparing initial goals with end results - then the scheme might be deemed a failure. If, however, the criterion for success is the perpetuation of the bargaining process, then the continuation of the negotiating activities itself must constitute success.
In the following paragraphs we look at the background to the development of the Hunter Valley Coal Chain Council and to its structure and operation.

Potential for Conflict: The Complexity of the Hunter Valley Coal Chain

The Hunter and Upper Hunter Valley coal regions in 1985 produced 42.2 million tonnes of coal of which 27.1 million tonnes were exported through the port of Newcastle (49). The Hunter Valley coal chain comprising all operations from pitface to the port and including all activities associated with the mining, processing, handling, stockpiling, transporting and export of coal, has been described as 'the most complex in the world' (50). Metaphorically it has been labelled a "pipeline with a series of controls along the way with different people having the ability to turn the taps on and off at will. Smooth operation of the system requires a great deal of communication and cooperation between all parties, who may be geographically separate, and politically and philosophically distinct" (51).

This is a rather simplistic notion of what is, in essence, an extremely intricate chain comprising a number of disparate and fragmented operations. Of
the 52 mines in operation in 1985 (52) 27 were involved in the export trade producing 70 different types of coal — thermal and coking — which, in order to meet customer demands, were mixed into 40 different blends. Ownership of mining operations is diverse and in 1985 a total of 27 (53) Australian and foreign companies owned all Hunter Valley mines.

Mine to port transport of coal is by road or rail and in some instances road and rail and conveyor and rail. Of the total 37 unions involved in the mining, transport and the loading of coal and associated maintenance, not less than 7 are engaged in the opencut and underground mining operations and 5 in the associated transport activities (Table 7.1).

Coal is stored at the port at two separate stockpile locations and is exported through three coal loaders each having, as we have noted, different management structures, industrial agreements and different union representation. One loading facility is government owned and operated; one is owned by a consortium of Australian and Japanese interests and the other is a public/private joint venture (54) (see Chapter 6).

In addition, numerous activities associated with the mining, transport and export of coal are the
<table>
<thead>
<tr>
<th>TABLE 7.1: Unions Engaged in Hunter Valley Coal Chain Operations</th>
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<tr>
<td><strong>COAL CHAIN UNIONS (in groups):</strong></td>
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<tr>
<td><strong>MINING:</strong></td>
</tr>
<tr>
<td>Australian Coal &amp; Shale Employees Union (Miners Federation)</td>
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<tr>
<td>Australian Collieries Staff Association</td>
</tr>
<tr>
<td>Electrical Trades Union</td>
</tr>
<tr>
<td>Federated Enginedrivers &amp; Firemens Association</td>
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<tr>
<td>Federated Mining Mechanics Association</td>
</tr>
<tr>
<td>Amalgamated Metal, Foundry &amp; Shipwrights Union</td>
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<tr>
<td>Newcastle District Deputies &amp; Shotfirers Association</td>
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<tr>
<td><strong>TRANSPORT:</strong></td>
</tr>
<tr>
<td>Australian Federated Union of Locomotive Enginemen</td>
</tr>
<tr>
<td>Australian Railways Union</td>
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<tr>
<td>Australian Transport Officers Federation</td>
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<tr>
<td>Federated Mining Mechanics Association</td>
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<tr>
<td>Transport Workers Union</td>
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<tr>
<td><strong>LOADING:</strong></td>
</tr>
<tr>
<td>Australian Foremen Stevedores Association</td>
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<tr>
<td>Customs Officers Association of Australia</td>
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<tr>
<td>Federated Clerks Union</td>
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<tr>
<td>Federated Miscellaneous Workers Union</td>
</tr>
<tr>
<td>Maritime Services Board Officers Association</td>
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<tr>
<td>Professional Officers Association of NSW</td>
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<tr>
<td>Sydney Coal Lumpers Union</td>
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<td>Transport Workers Union of Australia</td>
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<td>Waterside Workers Federation</td>
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<td>Waterside Workers Federation Cranes Branch</td>
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TABLE 7.1 (Cont.):

MAINTENANCE:

Amalgamated Metal, Foundry & Shipwrights Union
Association of Professional Engineers of Australia
Australian Society of Engineers
Australian Workers Union
Building Workers Industrial Union
Electrical Trades Union
Federated Enginedrivers & Firemens Association
Federated Ironworkers Association
Federated Ships Painters & Dockers Union
Plumbers & Gasfitters Union
Transport Workers Union of Australia

SHIPPING:

Seamens Union of Australia
Merchant Service Guild
Firemen & Deckhands Union
Australian Institute of Marine & Power Engineers

Source: Joint Coal Board.
responsibility of and subject to the regulations of diverse government departments and statutory authorities at federal, state and local levels.

Early Attempts to Solve Problems: NEWCOL, NEWCEP and NEWCERC

Up to the mid-1980's the Hunter Valley coal industry was characterised by industrial unrest, conflict between different government levels, unions and other vested interest groups. Problems associated with an essentially fragmented industry were exacerbated as factions pursued self interests ignorant or in disregard of adverse effects on other areas of the industry.

A number of committees had been established over the years in an attempt to overcome problems associated with a fragmented industry. But though some made valuable contributions in specific areas, they were either national or state bodies unable or unwilling to intervene in many regional disputes, or were essentially partisan and served the vested interests of a particular faction.

The Newcastle Coal Loading Group (NEWCOL) was one of several organisations established to help smooth the flow of coal from the Hunter Valley mines to overseas coal buyers. NEWCOL was established in 1984, prior to the opening of the Kooragang Island
coal loader, in order to coordinate all coal handling in the port. It is essentially a billing partnership between the two present coal loader operators, PWCS and KCL and does not incorporate mine to port transport operations. (In 1988 the MSB became a partner to the NEWCOL agreement).

The Newcastle Coal Exporter Group (NEWCEP) comprises representatives of all Hunter Valley coal exporting companies. Meetings centre around shipping programmes and members attempt to prevent or solve in advance any anticipated problems related to shipping.

The Newcastle Coal Export Review Committee (NEWCERC), comprising all major employer groups in the coal chain, was established in July 1983, in order to review coal exports in the Hunter Valley region. The objectives of NEWCERC were to study the problems within the coal chain, engage in problem solving and by constructive consultation and assistance improve efficiency. The Committee, chaired by the NSW Coal Association, consists of representatives from both PWCS and KCL, the SRA, a representative from NEWCEP, the Road Transport Association and the MSB.

These organisations, however, were without exception, employer based. There was no direct
input in their activities from trade unions or the State Government, except for those authorities - the MSB and the SRA - who were actively engaged in the coal chain and whose membership was based on its role as major employer groups.

The problem areas addressed by the Committees were necessarily partisan and questions on industrial relations, for example, were outside the Committees’ guidelines. There did not exist an effective forum at which all areas of operation, including trade union interests, could be discussed.

In 1982, however, following continued industrial disruptions, loss of coal sales and high demurrage costs, the Newcastle Port Advisory Task Force was established in an effort to streamline coal chain operations. The Task Force as a resolver of industry problems was chaired by the Hunter Valley Development Board and included employer and government as well as union representatives. The Task Force was relatively ineffective, however, as it became a forum for the promotion of vested interests rather than a mechanism to investigate broader regional problems.

Restructuring the Joint Coal Board: A Key Player

In 1983/84 following prolonged industrial unrest, mine closures, major queuing problems at the port of
Newcastle and threats of further retrenchments, a number of strategic moves were made in an effort to encourage and establish a cooperative and consensus seeking environment between all major factions in the Hunter Valley coal chain. Among the first of these was the restructuring in 1984 of the JCB which had been established jointly by the Commonwealth and NSW Governments in 1947 at a time when the NSW coal industry was the mainstay of Australia's domestic coal supplies. Its establishment occurred during the post World War 2 period when the coal industry, in a state of crisis, was characterised by fuel shortages and industrial unrest, and was to ensure the orderly development of the coal industry in the state. The Board's wide ranging and independent powers enabled it, for example, to commandeer a fleet of trucks in the late 1940's to ensure the continued flow of coal; and in the late 1950's and early 1960's, when the Board was the largest coal producer in the state, it had assumed the task of purchasing and installing new equipment in the industry (55).

Since that time, however, it has been suggested that the "profile and the impact of the Board has varied, depending on the issues of the day and the background and experience of the Board members" (56). Its post World War 2 structure, in any event, became inadequate and incapable of handling an
The growth of the export trade, for example, had resulted in the Queensland industry's rapid growth yet the Queensland Government had refused to allow the Board to oversee its mining and export operations. This had weakened the Board's capacity to ensure a balanced industry development (57). In addition, the Board's membership of three, appointed by government, did not include either an industry or trade union representative, inhibiting effective industry and trade union input and representation on a tripartite basis.

The restructured JCB retained its three member framework and in accordance with earlier practices, its chairman continued to be a senior federal public servant. But as a result of prolonged pressure from the Miners' Federation and the NSW Coal Association, the Board would now represent tripartite interests with the other two members being trade union and coal mining company representatives.

The restructured Board identified and focussed its efforts on three major directions - industrial relations, impact of technology and the field of market development (58). The Board's objective was to devise a set of guidelines for government, unions and management which would allow the smooth introduction of new and improved technology, taking
into account, however, the social and human effect on the workforce whilst at the same time maintaining the industry’s competitiveness in the international market. It was proposed that when investigating 'the impact of new technology' the Board would incorporate any "new or refined technique which had the effect of reducing the labour input for a given level of production" (59). In the field of market development the initiatives related primarily to maintaining and extending the markets for coal (60).

The Board’s new structure and revised foci, particularly in the field of industrial relations, led, in part, to its subsequent involvement in establishing a tripartite organisation whose aim was the promotion of a consensus seeking approach to policy problems rather than the customary conflictual and confrontationist behaviour.

The Emergence of a Tripartite Negotiating Structure: A Major Development

A particularly disruptive period industrially in the Hunter Valley led to the investigation of possible ways of establishing a conciliatory type environment. The Mt. Thorley front end loader dispute and the conflict between the Miners’ Federation and the TWU over union coverage at the Drayton mine had severely disrupted coal mining operations and transport. But the prolonged
stoppages in the SRA in December 1984 and January 1985 over the proposed changes in manning levels on NSW trains had severely disrupted coal chain operations and had led to a stoppage of all rail hauled coal to the port. Although coal was road hauled during this period, road transport was an inadequate alternative and incapable of handling the export volumes. As a consequence major queuing problems had been experienced at the port.

The realisation that one faction, indeed one union, engaged in the coal chain could so severely disrupt operations led to the belief among some industry members that a conciliatory approach to problem solving should be adopted; and that all elements engaged in the coal chain operation should endeavour to reach solutions by way of negotiation, consultation and compromise rather than the confrontational practices.

The secretary of the Newcastle Coal Export Review Committee, in order to have all elements of the coal chain represented on the Committee attempted, albeit unsuccessfully, to include trade union representation on the Committee (61). And the Executive Director of the NSW Coal Association informed the Minister for Resources and Energy that while the establishment of the Newcastle Port Advisory Task Force was a "recognition of the value
of regional interests in providing an informal communication channel for the exchange of ideas, views and concerns . . . and that the informal process had been effective in removing obstacles which often (arose) in the formal process . . . efforts should continue to be made to add stability to the coal chain through the amalgamation of unions and by improving commitment by employers and unions to solve problems by discussion and conciliation without disruption" (62).

The JCB, concerned about the scope for disruption in the coal chain, saw the need to develop a more effective policy mechanism. The railway strike, in which the coal industry was not directly involved, had the effect of putting at risk coal export contracts and hundreds of jobs. It has been suggested that this strike, in particular, provided the trigger for an attempt to be made to put in place a mechanism for dealing with problems away from the glare of publicity, before overt stances were taken by parties involved in the policy process, which could not be changed without loss of face (63). The Board, as a result, floated the idea of establishing a conciliation type committee in order to minimise problems (64) and trade unions, particularly those employed in the mining of coal and who were concerned that the railway problem
could lead to standdowns of their members, consequently supported the Board’s proposal (65).

But before input from the trade union movement as a single body was feasible, some consensus and amalgamation of union interests was necessary. To this end, following JCB discussions with the Newcastle Trades Hall Council in an attempt to bring together representatives from all unions engaged in the coal chain, the Combined Coal Chain Unions Consultative Committee (CCCUCC) was formed. The 14 member council’s objectives included -

1. The protection and advancement of the well being of those employed in the coal chain and associated industries, and

2. The promotion and support of stable development of the Hunter Valley coal resources through consultative and consensus processes (66).

While the unions combined to form the CCCUCC, negotiations between the JCB, the NCHC, employer groups and government departments and agencies were underway. These would result in the formation of a tripartite mechanism to “take the form of a regional coal council operating on a voluntary basis with high level representation from every element in the chain having the power to impede or enhance the flow of coal from mine to port” (67) - the Hunter Valley Coal Chain Council (HVCCC).
Membership of the HVCCC thus was drawn from the three major factions engaged in the coal chain operations — union, employer and government groups. The trade union group would be represented by the CCCUCC Executive and the tripartite council delegates and would consist of a representative of the Newcastle Trades Hall Council and three elected members of the CCCUCC.

The employer representatives on the Council were NEWCERC members and from government ranks representatives of Ministry of Transport, and the Departments of Industrial Relations and Mineral Resources were appointed. The JCB also was represented and would chair the Committee.

The Council’s five objectives were:

1. "To protect and advance the well-being of those employed in the coal chain and associated industries;"

2. To promote and support the stable and efficient development of the Hunter Valley’s coal resources through the consultative and consensus process;

3. To seek and consolidate the continuity of coal supplies to customers, both overseas and domestic;

4. By a process of consensus establish a framework for disputes prevention and settlement procedures relevant to each link in the coal chain within the ambit of the Coal Chain Council; and
5. To provide a forum for the exchange of information amongst and between all groups and committees within the coal chain” (68).

It has been suggested (69) that in many instances conflict flourished in a climate where there was little clarity and agreement on what the real problem issues were and a major purpose of the tripartite organisation was to provide communication channels between all links in the coal chain - a forum, in fact, which would encourage discussion and negotiation thereby preventing the politicisation of problems, as had so frequently occurred in the past (70).

Members of the Council would not participate as 'lobbyists for their organisations' (71) but as twelve 'wise men' with different backgrounds and experience and with the capacity between them to focus on the root cause of any problems which threatened the stability of the industry (72).

Though members possessed high levels of expertise in their specific areas, it was found that, not infrequently, they were ignorant of the operation and complexity of other areas of the chain. Some members of the transport and port end, for example, had never been involved in the operations of a coal mine and those at the mining end had limited understanding of the complexities involved in the
shipping operations (73). In order to develop a common understanding by each Council member of the range and issues involved in areas beyond the individual’s expertise, and to bring members together into a more cohesive unit, Council members, as a group visited the coal chain operations including mining, washing, transport and shipping operations (74).

The aim of the Council is not to take over policy-making functions which are the responsibilities of existing organisations or to handle disputes which can be dealt with by other established mechanisms. Rather, it is to provide a forum in which grievances can be aired before they become politicised. The establishment of the Council, in particular, has created the opportunity to discuss conflict issues thereby preventing the development of rigid and generally highly factionalised stances before confrontationist approaches are adopted. Once issues become politicised the possibility of entering into effective negotiation and the likelihood of changing strategies by the parties involved, becomes all the more difficult. The Council’s aim, ideally, is the prevention of problems by providing an early warning mechanism of possible disharmony.
An essential ingredient and, indeed, a pre-requisite, if the Council objectives are to be realised is the willingness of its members to negotiate — a breakdown in the negotiating process, as Elmore (75) suggests, would constitute a breakdown in Council effectiveness. To date, despite the fact that the mechanism has at times been demonstrably fragile (76) and some members, the mining unions for example, have used their membership as a bargaining weapon threatening withdrawal from the Council if their demands were not met (77), discussion and negotiation have continued.

The Council's chairman (78) has pointed out that the threat to withdraw membership does not necessarily constitute a breakdown but is indicative of the fact that "the twelve wise men concept striving for the general benefit of the industry rather than the lobbying for a particular viewpoint, is yet to be consummated". He argues that "the continued high level representation must be maintained if the Council is to succeed". In addition, if the concept is to be credible and effective it must be "represented by people who have the authority, integrity and initiative to make decisions". He points out that the initial enthusiasm must "not be replaced by complacency and misplaced self interests". "The Australian landscape is littered
with Councils, committees and the like which seemed like a good idea at the time but failed to maintain momentum once the initial enthusiasm waned" - this, he suggests is the "greatest challenge to the coal chain concept".

CONCLUSION
The significance of the Council's establishment, approximately three years ago, is considerable and constitutes a milestone certainly so far as areas of industry cooperation and industrial relations generally are concerned. The emphasis is on problem prevention, rather than resolution of conflicts after they occur.

Despite this it is difficult to determine with accuracy whether or not it has been an effective mechanism. Firstly, because of its recent origin and the fact that the period of its establishment is as yet an insufficient long term gauge, particularly in a depressed industry climate in which participants, of necessity, are somewhat inhibited and cannot pursue self interests in total disregard of the impacts of their actions. Secondly, because the mechanism itself is aimed at prevention of problems it is difficult to assess, with accuracy, how conditions would have developed differently in the event that the Council had not been established.
Certainly, with its emphasis on negotiating and consensus seeking it is significant from a policy and industrial relations perspective. This study illustrates that both policy formulation and implementation are bargained and negotiated strategies and any endeavour to enhance this technique must necessarily be beneficial in the long term.
REFERENCES AND FOOTNOTES


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59. *Ibid*, p.3.


61. Personal communication, Port Waratah Coal Services Ltd.

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76. Wilcox, J. (1986), *op.cit.*
In the decade following the early 1970s demands on coal export infrastructure were very high. Expansion in NSW coal exports were constrained by existing facilities and in order to enable anticipated growth to eventuate numerous proposals were made for the development of transport infrastructure.

Relatively few of these proposals were completed, however. Plans frequently were modified, implementation was postponed and in a number of instances was abandoned altogether. Impediments in the policy process were invariably of a political nature. The location of a coal loader, for example, in a number of extremely sensitive marginal electorates generated reactions from state and local government politicians and led to the abandonment of plans; in some instances proposals became the focus of militant trade union action; and in others they became the subject of intense environmental lobbying. All proposals were, without exception, steeped in controversy and the whole decision-making process surrounding infrastructure provision, conflict-ridden and highly politicised.
Governments refused or were unwilling to allocate resources which would enable long term planning to be carried out. Mining companies were either prevented from, or were unwilling to, provide infrastructure; and trade unions and other pressure groups frequently were instrumental in preventing projects from being completed. As a result, policies were implemented incrementally and without any real semblance of comprehensiveness and coordination — a coal loader, for example, without the simultaneous development of an essential mine to port transport network. The planning process, in fact, was characterised by *ad hoc* development and a series of responses to crises that occurred with considerable, though unpredictable, regularity.

In an effort to understand the complexity of this process and to explain the provision of infrastructure, it was intuitively apparent that the principles of economic rationality were inappropriate. Rather, an adequate explanation required an investigation into the policy-making process itself and, as Wolpert (1) had pointed out, much earlier, entailed an understanding of the 'decision environments'.
It further became evident that traditional geographic models provided little insight into actual location decisions and we adopted Eliot Hurst's (2) advice on the need to look beyond the 'bare networks and nodes' and to incorporate into our explanation the subjective dimensions of decision-making, the political frameworks and government legislation.

This study thus adopted a political perspective and expanded on methodologies proposed by Grant, Blowers and Muir and Paddison, for example, by focussing on the role of pressure groups, power relationships and the policy constraints which evolve from the intricacies of the political process itself.

We thus conceptualised the question of infrastructure provision and location decision-making within a more general policy-making context. There did not exist, however, within the geographic discipline a ready analytical framework within which to examine this specific problem area. Conflict theories, for example, were found to be inappropriate for although the notion of conflict and its resolution were essential features of our study, it did not focus on the emergence of conflict as a necessary product of the socio/economic
structure. Nor did we view conflict as a deviation from what would otherwise constitute a rational decision-making process. Rather, conflict in this study became the mechanism which operationalised the policy process — it provided the basis for problem resolution rather than being an end product of that process.

An Elite theory and class structure approach also was considered inappropriate for this study. There was little evidence to support an argument that decisions relating to infrastructure provision were made by a dominant elite. While it can be argued that infrastructure provision, as such, served the interests of the economically dominant class — the mining companies — consideration of infrastructure location and in some instances its actual provision, did not fit comfortably within the ruling elite conceptual frame.

Certainly when we looked at the policies concerning the provision of coal loading facilities during the 1970s — that of Clutha’s Coalcliff proposal and that of Port Botany, there was little evidence to suggest that any powerful economic elite had dominated the policy process. In fact the reverse argument would be more accurate as business
interests were specifically prevented from pursuing their goals.

In addition, Elite theory was considered inappropriate as it suggested, unlike Pluralism, that a relatively static elite group dominated all areas of the policy processes. Once again there was little evidence to suggest that a single elite dominated all or even a majority of policy decisions. In the case of the Port Botany development environmental and resident action groups were extremely influential in determining policy. And in the discussion concerning the provision of coal loading facilities in Newcastle, the Federal Labor Government and trade unions were exerting considerable influence on the NSW State Government in determining not only provision of port infrastructure but ownership of that infrastructure as well.

The case studies, in fact, provide considerable evidence against the Elite theory. Rather they illustrate that a number of groups impacted on policy-makers and that the reason for participation was issue, rather than class, specific.
Marxist theory also was considered an inappropriate theoretical framework for conflict ridden location decision-making. It can be argued that, ostensibly at least, government in some instances could be seen to be an instrument of capital - the NSW Liberal Government encouraging the development of port facilities by the private sector for example. When this position is further investigated, however, it is apparent that the capitalist class did not dominate the policy process and there is little evidence to suggest that the state was an instrument of that class. In the case of the Coalcliff and Botany Bay coal loaders, despite the fact that the NSW Liberal government had granted permission for construction of both facilities to proceed, pressure group action prevented both policies from being implemented. The case study on Newcastle port development also is not amenable to Marxist interpretation. In that instance governments involved certainly could not be construed to be an instrument of capital. Government themselves were in conflict concerning development and were unable to resolve the ownership question.

Similarly in the studies investigating mine to port rail infrastructure provision, government complacency and ultimate rejection of essential
railway development would certainly provide a sound argument against Miliband's notion of 'instrumentalism'.

The theory of Corporatism was considered also inappropriate as a conceptual framework for our study. Admittedly there was evidence to indicate that policy-making had at times had a semblance of a tripartite process in so far as it had involved government, business interests and trade union participation. But tripartite negotiations as such are not necessarily identical with corporatism. It must be recalled that corporatism occurs when advanced industrial economies have passed from laissez-faire capitalism and the anarchy of the market place with a minimum of state intervention, to one in which the state exercises control over all major aspects of business activities. In addition, a further fundamental feature of corporatism is the position of the state as a regulator of both capital and labour demands.

The Newcastle case study illustrates that although tripartite negotiations were the norm these hardly conformed to fundamental corporatist principles. The state, for example, did not exercise control over the policy process. The study suggests, in
fact, that business and trade union interests were dominant and that the state neither regulated nor dominated the policy process nor that of capital and labour demands. It is apparent that rather than the state assuming a proactive and regulatory role, the state's position was one of reaction.

In order to explain infrastructure provision and locational behaviour, therefore, we adopted a political perspective and a range of concepts from political science - those which were related, in particular, to group theory, under the broader conceptual umbrella of pluralism.

Part I of the thesis provided the conceptual and historical background to the problem under investigation. Chapter 1 provided a review of the spatial literature within which infrastructure location has generally been discussed and put forward reasons for pursuing a somewhat different but more appropriate explanatory framework.

Chapter 2 was essentially a background chapter providing the historical context out of which emerged a number of areas for investigation. It discussed the growth of the NSW coal export industry in response to some fundamental changes which
occurred in the global and local demand for coal during the 1970s. It noted, albeit briefly, the rapid expansion of the coal export sector, the spatial distribution of new mine development and operational and technological changes in production, all of which impacted seriously on the coal transport system. It was argued that existing infrastructure became an obstacle to industry growth and we traced, again somewhat briefly and from an historical perspective, a number of proposals for infrastructure development which would remove this constraint.

These developments occurred, however, within a highly complex policy environment in which controversial issues were politicised and complicated by pressure group demands and a fragmented and highly sectoralised bureaucracy. Problems within the policy environment itself, it was argued, led to considerable impediments not only in formulating policies but also, once formulated, of having them implemented.

Part II, the empirical body of the thesis, was made up of a number of detailed case studies which focussed on the structuring and/or development of
particular parts or elements of the wider transport infrastructure network for export coal in NSW.

These case studies (in the four chapters, from Chapter 3 to Chapter 6) examined, at considerable length, the complexities of the decision- and policy-making frameworks of infrastructure location and provision.

Chapter 3 investigated the location of coal loaders to serve Western, Southwestern and Southern exports and illustrated that location was explicable in terms of a highly political policy process. It argued that the perceived negative externalities associated with coal loader development in a number of particularly sensitive marginal electorates, and the adoption of a controversial issue as part of an election strategy, led to locational decisions being made essentially to satisfy minority group demands and to serve the vested interests of a political party.

The implication of this strategy was that, while the policy placated constituents in electorally sensitive areas and won government for a party out of office for more than a decade, it resulted in the development of a coal transport infrastructure
network which was inadequate to meet projected demands.

The political process determined the location of facilities – that the Botany Bay development would not proceed and that instead the new loader would be sited at Port Kembla. It also determined the actual provision of facilities for, rather than proceed with the construction of two coal loaders designed to cater for different customers and export districts, government policy stipulated that one loader only would be developed and that a small existing facility would be upgraded (Balmain).

A consequence of this decision was that it committed government to the construction of the more expensive facility in a location not easily accessible for some of its major users and which, in addition, created a number of further transport network problems. It resulted in government having to bear the responsibility for the construction and funding of the loader itself, for although the private sector had initiated development of the Botany Bay facility, it refused to fund the Port Kembla construction.
Some spatial and operational implications of government policy were investigated in the following two chapters. Chapter 4 examined the allocation of coal export flows along a feeder network to competing ports and demonstrated that the allocation of traffic flows is also an inherently political process. It discussed the introduction of a freight subsidy to offset high transport charges as a consequence of loader location, but which also determined freight flows to particular nodes.

Chapter 4 also raised a number of policy and operational issues which had important spatial implications. These related, in particular, to port investment and disinvestment strategies and to the implications for the continuation of the freight subsidy in the event that the Balmain coal loader, upon which the Western Freight Equalisation Scheme was based, ceased operation.

It also discussed some of the problems associated with political decision-making and suggested that the introduction of the freight subsidy would solve short term distribution and capacity problems, rather than achieve longer term optimality.
Chapter 4 further highlighted policy implications and problems associated with a fragmented and highly sectoralised bureaucracy and difficulties in obtaining agreement on policy issues between a number of public agencies each pursuing essentially departmental, rather than more broadly based governmental interests.

Chapter 5 discussed the structuring of feeder networks - the actual routes over which coal moved and the modes by which it moved. It discussed the failure by government to complete the construction of a railway line to Port Kembla on the one hand but its persistent adherence, on the other, to a modal policy which stipulated that coal could no longer be road hauled.

The result was a fundamental mismatch between government infrastructure and modal policies which led to gross inadequacy in the transport system for the movement of export coal to Port Kembla.

The implications of this policy mismatch, and the unsuccessful attempt to place the onus for restricting road haulage on the coal exporting companies, led to the doubling of road hauled tonnages, longer haulage distances for some railed
coal and higher transport costs, and operational difficulties at the Port Kembla coal loader, which was ill-equipped to receive such large volumes of road hauled coal.

In Chapter 6 we again investigated the location and development of port facilities but focussed on coal loading provision and ownership within a single port area — Newcastle — and examined delays in infrastructure development.

The first section of the chapter looked at delays in completing Newcastle's second coal loader as a consequence of ideological conflict over ownership between two different levels of government — State and Federal. In the second section we looked at the development of the Kooragang Island coal loader and the delays which occurred when, once again, agreement could not be reached concerning ownership of the facility. In this instance, however, conflict arose between a number of vested interests one of which was the NSW State Government which, itself, was divided over the issue. The traditional left wing faction of the ALP pushed for public ownership of port facilities while the more moderate and pragmatic premier believed that the private sector should pay for its own infrastructure. In
both cases infrastructure development could not proceed until the ownership controversy was resolved.

In Chapter 6 we also discussed delays in completing the construction of both Newcastle’s second and third coal loaders as a consequence of power struggles within the bureaucratic machinery, the influence of trade union groups and of inter-union rivalry as individual unions sought to maximise benefits. These delays were exacerbated by conflictual actions of coal companies as they sought an efficient and low cost transport system but were unable to reach agreement on operational control.

Part III of the thesis once again focussed on the policy-making process. It was concerned not with the problems of formulation of policy, however, but with the problems associated with its implementation. Chapter 7 took up this theme.

The chapter investigated conceptually a number of implementation models and argued that failure to effectively implement a policy was frequently a consequence of the policy process itself; and that plans were formulated not infrequently in ignorance, or in disregard, of its impacts. One of the
apparent difficulties was that there was little opportunity for discussion or input from affected communities or interests, until the decision process was well advanced or until a decision had, in fact, been made.

It was not suggested that all groups and individuals likely to be affected be consulted and for a consensus to be reached before policy proceeded. What was pointed out, however, was that many policies failed to get off the ground and we questioned the wisdom and efficacy of a process that failed to take into account issues of fundamental importance to groups sufficiently powerful enough to be able to prevent plans from being implemented.

It was further indicated that the entire policy process, including both the formulation as well as implementation stages, consisted essentially of bargaining and negotiation strategies. It was suggested that the way to reduce, if not eliminate implementation problems entirely, and enhance the process generally, was by greater utilisation and practice of these techniques rather than the customary confrontationist approaches.
In the final section of Chapter 7 we discussed the establishment of the Hunter Valley Coal Chain Council, a consultative mechanism and forum in which all interests engaged in the Hunter Valley coal industry are represented. The Council provides a forum which aims at preventing the politicisation of conflicts and in which issues can be negotiated and problems discussed, with the possibility of avoiding severe, crippling delays such as those which have been experienced in the past.

A final note is in order. This study has demonstrated that the provision and location of transport infrastructure for the movement of NSW export coal are not adequately explained by spatial models which assume economic rationality nor does explanation conform to the principles of the so-called synoptic decision-making models. Rather, it has demonstrated that the location of coal loaders, the structuring of feeder networks to ports and the allocation of freight flows along these networks are the outworkings of political processes which are explicable in terms of extraordinarily complex policy-making mechanisms. It has demonstrated, also, that problems are not exclusively locational or spatial, but also concern the actual policy-making mechanism - in fact the entire policy
environment. The study has further demonstrated that infrastructure development has occurred on an incremental basis and, in fact, within a policy environment unable to cope with dramatic and major changes.

Invariably policies were drawn up with little regard to their implementability. It is unlikely that all problems encountered could be anticipated; the complexity of the process, and indeed its inherent unpredictability, would prevent this. Frequently, however, the opportunity for input into the policy process from interested parties did not arise until a public hearing was held. This occurred after policies had been formulated and an assessment made on the environmental impact statement - at the end, in fact, of the policy formulation stage.

This situation seriously calls into question the suitability and efficacy of the present system of public hearings. Admittedly public inquiries are not established and do not possess exclusively formal policy-making responsibilities and powers, and their functions are to assess and advise policy-makers on whether or not a project should proceed. Nevertheless, in view of the fact that their recommendations incorporate, or have the potential
to incorporate, the relevant positions of interest groups, it necessarily includes a policy component.

In our case studies the relevant public inquiries, without exception, recommended that development proceed. This included those instances in which projects were subsequently abandoned in response to pressure group demands. It seems apparent, therefore, that a public inquiry either takes insufficient account of interests presented to it, or that insufficient use is made by interests of the inquiry as a forum to express concern. Whichever the case may be, the relevant point is that though public inquiries may undertake the formal steps to assess whether or not a project should proceed, in their present form they provide little insight into whether or not the project will, in fact, proceed.

Given the inherent complexity of the policy process and the numerous participants involved, how can the process be enhanced? Certainly improvement cannot be attained with the adoption of synoptic principles nor, as Lindblom (3) suggests, by abandoning the notion of incrementalism, the concept of mutual adjustment or by striving for an unattainable ideal. Rather it means practising the policy-making techniques more skilfully; and improving negotiation
and bargaining techniques between numerous factions, each potentially able to influence activities and on whom various policy 'clearances' (4) depend.

Our analysis leads us to suggest that improvement lies initially with greater participation in the planning stages. Changes must also arise from within the structure of the policy environment itself. A mechanism with emphasis on compromise — that is on policy options, goals and implementation procedures, will not eliminate all policy problems; but it will certainly mitigate and reduce some of the more serious problems that are likely to arise.

This point returns us, of course, to the normative model of the policy-making process which was outlined in Chapter 1 (Figure 1.1). For that model clearly suggests the need for the involvement of individuals and groups in the process at particular stages such that it allows some optimisation of the process in toto.

The case studies have demonstrated that, certainly in the conflictual policy-making environment of the 1970s and early 1980s and in respect of the provision of coal transport infrastructure, successful implementation of decisions was dependent
upon the cooperation of those groups which had some interest in the policy outcome. They have further demonstrated that that cooperation would have been better sought within the formulation phase of the process.

Not that powerful factions will not continue to exert pressure in what the model refers to as 'Residual Power Play'. Decision-making involves the striving for agreement and in most instances a compromise; all goals of all participants are unlikely to be met and there will remain an element of discontent within those factions whose demands have not been fully satisfied.

The normative model suggests, however, a more pragmatic and effective decision-making process. It will provide, too, a greater degree of coordination and integration of interests in the planning process. Certainly these are important characteristics and much of the policy process concerned with the provision and location of coal transport infrastructure has been characterised by the absence of coordinated and integrated planning, particularly at government level. Simblist (5), for example, in the Report of the Botany Bay Port and Environment Inquiry noted that "the Inquiry
considered that the largest single source of concern which became manifest before it was that related to a lack of full scale planning”.

This study has also illustrated that policies have invariably been implemented on an *ad hoc* and incremental basis. In many instances government in particular must carry the responsibility for policy failure by not making available necessary resources, or by weakening to pressure group demands. In addition, failure has occurred as a result of what at times were unrealistic demands of pressure groups, by the inability of the coal companies to initiate development and bring this to fruition and by yielding to militant tactics and trade union demands.

In NSW, coal industry development in the 1970s and early 1980s occurred within a policy environment totally incapable of handling its unprecedented growth. The extreme optimism concerning the future of the industry led to a widespread belief that profits were beyond bounds. Coal companies, governments, statutory agencies and trade unions alike sought their share of the spoils. And even when the industry underwent a slump and it became apparent that profits would not continue to
escalate, that present costs could no longer be borne, exploitation by the various factions nevertheless continued. Strategies were not devised to cater for changing needs and production, and participants continued to pursue, individually, their self interests.

Any long term improvement in the policy process must reflect collective action and cannot be the responsibility exclusively of one particular faction. It is dependent upon the integrity of the policy-makers, on the 'reasonableness' and actions of the participants, on the ability of these to discuss and negotiate rationally all policy options, and on the willingness to accept compromise.

In any case, it is certain that the pattern, structure and to a considerable extent the operation of the existing coal transport network in NSW cannot be explained without reference to, and an understanding of, the complexities in the decision-and policy-making process - of the elements of power, the linkages which sustain and condition them and the 'play of power'; for the existing infrastructure networks and any future improvements are, as Wolpert noted almost two decades ago, 'merely the end products of policy compromise' (6).
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