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"The Dammed":
A Comparative Study of Movements in Resistance
to Hydro-electric Projects

by

Cheryl Tingley

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ABSTRACT

"The Dammed": A Comparative Study of Movements in Resistance to Hydro-electric Projects

Cheryl Tingley
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I undertook this exploration due to the social significance of resistance movements and the lack of comparative studies regarding resistance. I explored the use of comparison to examine and evaluate the nature and forms of resistance to hydroelectric projects in order to make some suggestions for further study regarding conceptualizations of resistance movements. My thesis is that hydroelectric projects will generate similar strategic responses regarding resistance. Conditions may vary, but ultimately the forms of resistance and tactics employed will be similar.

Evidence has shown that people will resist hydroelectric projects (Goldsmith and Hildyard 1984, 1986; Cummings 1990; Colson 1971; Scudder 1985) and this is corroborated by the case studies found in this thesis.

To demonstrate the usefulness of a comparative method, I selected one structural problem, specifically, hydroelectric projects which are being resisted, in order to use an illustrative comparative method to examine strategies of resistance cross-regionally. My familiarity with the material to be examined led me to the thesis that there would be similarities and that uncovering these would contribute to the body of knowledge about resistance movements, as well as illustrating the effectiveness of a method not often employed in studies or theories of resistance. My discussion of current theories of resistance and studies of resistance demonstrate that the method of comparison is underutilized.

With this in mind, I have explored resistance movements in this thesis by discussing some of the literature surrounding these movements, as well as methods of comparison. I used three case studies to explore the use of comparison and offer comments and suggestions for future research.

TABLE OF CONTENTS

Acknowledgements.....	i
Chapter One	
Introduction.....	1
Chapter Two	
Theory.....	6
Studies on Resistance to Large Scale Development	
Projects.....	12
Chapter Three	
A Restatement of The Problem.....	45
The Relationship between Resistance and Imposed	
Dams.....	45
Methodology.....	48
Chapter Four	
Presentation of the Data-	
Introduction.....	58
A: Case Study: Panguue Dam and associated sister	
dams - Chile.....	58
Interpretation of Data.....	69
B: Case Study: The Narmada River Basin	
Project- India.....	73
Interpretation of Data.....	92
C: Case Study: The Tennessee Valley Authority-	
United States.....	102
Interpretation of Data.....	111
Chapter Five	
Discussion of Case Studies and Queries for Further	
Study	
Restatement of Thesis and Limits of Data.....	113
Summary of Arguments and Discussion.....	115
History of Resistance and Comments	
from Case Studies.....	120
Summary of Case Study Discussion.....	123
Implications for Further Research.....	125
Endnotes.....	129
Bibliography and References Cited.....	132

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and frustrations involved in writing a Masters thesis. They knew the right things to say when deadlines loomed large. This also helped to inspire in me the knowledge that what I was writing was important and valuable to social science research and to the International Development program in general. I would also like to express my gratitude to my fellow graduate students who offered words of encouragement and occasional insights into those little problems that seem so large when one is so close to finishing a project.

If there is fault to be found in the content of this thesis, then it lies solely with the author, who assumes full responsibility. I apologize if I have left anyone out of this acknowledgement; but I am grateful to any and all assistance and support I received throughout the almost eighteen months I have been focussing on this particular project. It is with great relief that I present the following thesis.

Chapter One

Introduction

My thesis is that hydroelectric projects will generate similar strategic responses regarding resistance.

Conditions may vary, but ultimately the forms of resistance and tactics employed will be similar. The point is that large-scale dams affect large populations or communities of people; affect their ties to the land and, because of this, they are more likely to collectively protest the imposed development. Environmental groups are also likely to support these actions and intervene and offer assistance.

I also propose that these similarities will only increase as the number of resistance movements increases, due to the probability of contact and linkages between these groups in sharing information, strategies and tactics.

One significant and defining characteristic of large dams is that they impact entire communities, and not just economic groups or segments of a population defined by class or gender. The structural specificities of large dams are such that they more often affect large numbers of people, frequently in communities, who will collectively protest the dam. The forms available to the various resistance groups may vary, but I suggest strategies will be similar and the case studies presented in this thesis support this argument.

Due to the social significance of resistance movements and the lack of comparative studies I propose to explore the use of comparison and examine and evaluate the nature and forms of resistance to hydroelectric projects in order to make some suggestions for further study regarding conceptualizations of resistance movements.

The proposed and actual construction of large-scale hydroelectric dams seem to bring out the most 'confrontational' responses of affected populations. In the analysis of these responses it is necessary to examine the strategies and issues of resistance and proceed with a comparative method of analysis to determine the nature, the forms, and relationships of/among various strategies.

Several factors discovered during the comparison of the case studies are as follows:

1. Membership of a given resistance movement may include 'communities' of resistance ('communities' being defined here as groups of people who will be or are directly affected by resettlement due to the construction of a given dam), organizations involved (which may include environmental, ecological and indigenous groups), leadership of the movement, and general participation which may include international organizational support.
2. The methods of resistance may be confrontational (as found in the case studies found later in this thesis) or non-confrontational (instances which were not addressed in this thesis, but are commonly associated with James C. Scott's theories of 'everyday' resistance). Also significant to the method of resistance is the issue of non-violence. This aspect is common to

all three of the case studies described. Also common to the three case studies is the use of the judicial process; whether through land claims (Chile); violation of legislative rights (India) or senatorial hearings (United States). All of the case studies describe some form of legal action being used as a form of protest.

3. The negative effects of the dams are described during the literature review and become very apparent in the description and commentary of the case studies.

4. The consequences of resistance is also something which should be considered when comparing resistance movements. Consequences are discussed in the context of the varying reactions by the governments' involved and by the process of development being hindered.

Evidence has shown that people will resist hydroelectric projects (Goldsmith and Hildyard 1984, 1986; Cummings 1990; Colson 1971; Scudder 1985) and this is corroborated by the case studies found in Chapter Four. The populations most threatened, by large hydroelectric projects, are often communities living closest to the project and whose livelihood will be severely affected. These populations are often comprised of indigenous peoples, landless peasants, labourers or a combination thereof. Because of this they are often seen as 'factors' which need to be mitigated in order to proceed with development for the national good.

Decisions are imposed on these populations and it is their resistance to being flooded out, resettled and uprooted for no discernable benefits to their population which is described in this thesis.

This thesis is but a modest attempt to generate more interest in using comparative research in the area of resistance. This thesis should be considered as an exploratory study in which a comparative method was employed for the examination of resistance movements. This document represents my attempt to demonstrate the usefulness of the method of comparison in future studies of resistance.

Theories of resistance (Scott 1985; Escobar and Alvarez 1992; McManus 1991; Aman and Parker 1991, Eckstein 1989) appear to have failed to account for or to allow for variance within or among resistance movements. I have noted that comparison is a method which has been under-utilized in the study of resistance (see also Adas 1991).

To demonstrate the usefulness of the method, I selected one structural problem, specifically, hydroelectric projects which are being resisted, in order to use an illustrative comparative method to examine strategies of resistance cross-regionally. My familiarity with the material to be examined led me to the thesis that there would be similarities and that uncovering these would contribute to the body of knowledge about resistance movements, as well as illustrating the effectiveness of a method not often employed in studies or theories of resistance. My discussion of current theories of resistance and studies of resistance demonstrate that the method of comparison is underemployed.

Much of the information is limited to a single geographic region, and even then, comparison within the region has not been fully explored. Given that resistance to hydroelectric projects is a worldwide phenomenon, it seemed to me a perfect opportunity to employ a comparative method to examine the nature of and strategies of resistance movements.

With this in mind, I have explored resistance movements in this thesis by discussing some of the literature surrounding these movements and also methods of comparison. The discussion of the three case studies in Chapter Four will bear my opinion out.

Chapter Two

Theory

It seems prudent to discuss and define the concept of development before beginning a discussion about resistance to it. Development is a concept which originated during the period after World War II. American President, Harry Truman, in 1949, introduced the concept as a duty of the rich to use their scientific advances and industrial progress to help the world's populations living in poverty. Truman's ideology can be incorporated as part of the notion of 'philanthropy' from the late 19th century and early 20th century. This altruistic notion led to the belief, of the well-to-do, that it was their obligation to provide for the betterment of society. Truman saw poverty both as a handicap and as a threat to the prosperous economic life of the rest of the world. He saw development as fostering capital investment and helping these 'poor' people " realize their aspirations for a better life" (quoted in Cayley from CBC IDEAS 1992:1). Development intensified the promulgation of Western ideas, institutions and ideology throughout the world. Development is seen by a growing number of disenchanted intellectuals, academics, development workers and students, as a 'loaded' term, conveying the ideology and cultural bias of one culture, the West, onto those who are

considered 'undeveloped' simply because they do not meet Western standards of technology or lifestyle (Cayley 1992; Regan 1994; Sachs 1992).

Development represents underlying presuppositions linked to a single culture. Along with these presuppositions, comes an attitude that assumes all development is desirable and necessary for the benefit of all humankind. However, along with this attitude, comes an ethnocentric assumption that the 'developers' know what is best for the 'developees', without consultation, participation or agreement of these developees (Regan 1994). I would suggest that it is this fifty years of unrelenting progress which has led to the rapid rise in resistance movements worldwide, not just to development projects, but to imposed doctrine from national governments which carries the threat of Western ideology and generally threatens the existence of many distinct cultures.

Resistance, which I will define here as being a reaction to 'imposed' decisions and actions, may be either confrontational or non-confrontational struggles which are employed by a group, or by individuals, in order to achieve their perceived goals. As well, resistance has been viewed as a desire for social justice in the face of a "fundamentally unjust social system (McManus 1991:viii). This resistance will often involve those groups which are frequently left out of political forums at the national

level and, thus, they are left with little recourse but to follow alternatives which are illegal, or at best, quasi-legal forms of political expression. Resistance may involve various forms of social conflict and present various kinds of political expression. The movement to resist an imposed decision takes on political meaning, and because of this, some political analysis or at least recognition of the political status must be acknowledged in any description and analysis of resistance. This aspect will be illustrated later in the thesis.

Much of the discussion regarding theories of resistance appears to be arising from the literature about social movements, and 'new social movements' (Escobar and Alvarez 1992; Oberschall 1991). Social movements have been seen to represent a struggle and action to organize on the people's part for an equitable change to a 'better' life (Escobar and Alvarez 1992). These actions may involve struggle against oppressive regimes, or the transition to democracy, as in Latin America; or the struggle to retain a distinctive cultural identity in the face of national development schemes, as seen in Latin America, India, and elsewhere in the world. In a discussion of the history of social movements in Latin America, Arturo Escobar pointed out that the 1980's saw a continuing rise in popular mobilization.

This mobilization represented many fronts:

From squatters to ecologists, from popular kitchens in poor urban neighbourhoods to Socialist feminist groups, from human rights and defense of life mobilizations to gay and lesbian coalitions, the spectrum of Latin American collective action covers a broad range. It includes, as well, the movements of black and indigenous peoples; new modalities of workers' cooperatives and peasant struggle; middle-and-lower-middle-class civic movements; the defense of the rain forest; and even cultural manifestations embodied, for instance, in Afro-Caribbean countries (1992:2).

Escobar also pointed out something which is quite significant to the study I am proposing to undertake:

In terms of strategy, it is important to convey the range of tactics, strategic initiatives, and forms of political organization developed by collective actors in their struggles,The question of strategy, of course, is intimately linked to how social actors construct a collective identity for themselves, often out of conflictual roles and positions (1992:5).

Social movements are beginning to be seen in terms of 'collective identities', and because of this, Escobar sees the need for continued research in order to explain the persistence of collective mobilization in Latin America. Continued research could expand Escobar's ideas to include resistance in the rest of the world. Social movements, collective action, mobilization, and resistance, are not isolated to the region of Central and South America. This does seem to be where the most recent theories and methods are appearing, and is certainly a region rich in varying forms of collective action within various "political

regimes, "levels of development", cultural contexts, and traditions of protest" (Escobar and Alvarez 1992:3). Escobar also points out that the term "collective identities" represents a new trend in research into social movements. It allows for the complexity of social action and interaction when social movements are involved in the political struggle for access to the mechanisms of power, as well as a cultural struggle (Escobar and Alvarez 1992:4). The impact these movements have on the democratization process, particularly in Latin America are significant for "cultural, social, economic and political life" (Escobar and Alvarez 1992:4).

Escobar sees social movements as being closely linked to the struggle to retain cultural identity. In a more general fashion, he notes that a restructuring of economic conditions is taking place worldwide and that this is a contributing factor to the significance of the "presence and struggles of social movements" (Escobar and Alvarez 1992:4). Social movements can be seen to represent two transformative potentials. One; social movements can expand "socio-political citizenship" which links peoples' struggle for social recognition and for "political spaces of expression" (Escobar 1992:5). Two; the search for collective identity can affirm their difference and specificity within the cultural field (Escobar 1992). These issues are illustrated in the case studies found in Chapter Four.

Escobar goes on to discuss that most recent concerns lie in the nature of resistance and social change in Latin America. In brief, Escobar states that the theories of 'new social movements', resulted in new waves of research and theorizing in the field. He notes that the 'old' is characterized as "analysis in terms of modernization and dependency" and anchored in definitions of politics as the struggle of the working class and revolutionaries who compete for control of the state (Escobar and Alvarez 1992:3). Escobar sees that new theories bringing about "fundamental transformation in the nature of political practice and theorizing itself" (1992:3). Escobar also points out that one cannot define social movements "solely in terms of economic and social categories; they must also be placed in political and cultural domains" (1992:7).

Studies On Resistance to Large Scale Development Projects:

I suggest that resistance movements emphasize the great dichotomy which continues to exist between developers and those being 'developed'. The developers continue to be those who have the power and operate from within the power structure both inside and outside the various countries involved. The 'developed' are those who have little, or most likely, no say in what or how development happens to them.

There appears to be a worldwide growth of resistance movements to development projects involving large dams (the Philippines, Canada, Nigeria, Chile, India). The significance of these large dams lies in the fact that they may be the single, largest, man-made, displacers of people. Natural disasters, war, civil strife, famine and drought, can all bring about population displacement. However, it is large dams, as projects of 'development', that are contributing greatly to the involuntary resettlement of hundreds of thousands of people worldwide (Sardar Sarovar in India, Three Gorges in China, Bakalori in Nigeria, James Bay in Canada, Itaipu in Brazil-Paraguay, Manantali in Mali, and Pangue and Ralco in Chile).

Resistance movements to these projects indicate a concentrated and growing opposition to 'development' from national or international agencies. The existing dichotomy

between those making the decisions and those on the receiving end of the decision process, is emphasized by the increasing rise of resistance to development projects in general, and dams in particular (Chico dam in the Philippines, Sardar Sarovar dam in India, James Bay project in Canada, Pangué and Ralco dams in Chile, the Hidrovía series of dams between Brazil and Paraguay).

It has been shown, primarily by those writing about the devastation of, and protest to, large dam projects, that small scale dams and irrigation or water projects stemming from local initiative are more successful, less environmentally damaging, and reflect more accurately the interests of those intended to somehow benefit. Hildyard and Goldsmith (1986) detailed the successful traditional irrigation systems of the 'qanats' of Iran, the irrigation agriculture of the Sonjo of Tanzania, the Chagga of Kilimanjaro and Sri Lanka's network of man-made lakes and ponds. Also of note is the work done by Stephen Lansing (1986), an anthropologist who studied the relationship between Bali's age-old water temple system and the dams initiated by the government. His work found both to be integral to the continued success of irrigation agriculture in Bali.

Some of the benefits of dams, cited by those proposing to build them are; a decrease in erosion, prevention of flooding, elimination of the waste of water, transformation

of deserts into gardens which can be utilized by humans, an overall 'betterment of environmental conditions' , supply clean potable water, supply jobs , provide hydroelectricity, and provide water for irrigation to increase food production (Goldsmith and Hildyard 1984:5; Marbek 1986). However, some of the negative effects of dams, rarely mentioned by those developing dams include; siltation and erosion problems, salinisation of the land, submergence of fertile land, loss of endangered species of plants, animals and fish, large numbers of people being forced from their homes (resettlement), introduction of waterborne diseases, such as malaria, schistosomiasis, filariasis and onchocerciasis (river blindness), sleeping sickness, dysentery, cholera, and general malnutrition (Goldsmith and Hildyard 1984-1986; Marbek 1986; Cummings 1990; Scudder 1973, 1985; Colson 1987).

These negative impacts often appear as significant factors behind the move to resist. Because of their global significance, I will be focusing on resistance to large scale hydroelectric projects (Cummings 1990, Goldsmith and Hildyard 1984-1986; Scudder 1973, 1985; Scudder and Colson 1987). This is primarily an attempt to narrow the focus of this thesis and to select a few examples in order to compare strategies and conceptualizations of resistance to a similar structural problem. These cases will include; the Sardar Sarovar and Narmada project(s) in India; the Pangué, Ralco

and sister dams in Chile; and the Tennessee Valley Authority project, which began during the Great Depression in the United States, located primarily in the Southern region.

I have been examining the literature of resistance movements in an attempt to provide a framework for my comparative investigation (Aman and Parker 1991; Barry 1987; Bodley 1990; Burbach 1987; Collins 1985; Colburn 1989; Cummings 1990; Drucker 1985; Eckstein 1989; Escobar and Alvarez 1992; Gutmann 1993; Haynes and Prakash 1991; Jaquette 1989; Mcmanus and Schlabach 1991; Scott 1985, 1990). What I have discovered through this literature search, is that conceptualizations of resistance vary, and I have not found any significant representation of comparative studies of resistance movements during this preliminary research. In fact, I only found one example of comparison, and that was in the collection by Haynes and Prakash (1991), and that was done by Michael Adas. Resistance movements have been examined as 'coping mechanisms' due to the changes brought upon populations by or through development (Mahapatra 1991), but most literature focuses upon one geographical region or theoretical orientation and only one offers a comparative analysis (Escobar and Alvarez 1990; Scott 1985; Haynes and Prakash 1991; Adas 1991) . The incidence of resistance to large scale hydroelectric projects are such that I believe a comparative investigation

would yield many interesting and significant similarities and differences on a global scale. By choosing comparison, one can collect information from different sites and investigate any similarities or differences in strategies of resistance to a similar structural problem (large dams). This process has the potential of illustrating regional differences in resistance or in revealing similar strategies which are employed to oppose these large projects. Also of interest is the political aspect that resistance may take on during the process of struggle.

Dams and subsequent resistance to these dams have been a significant topic of consideration due to the fact that the numbers of people being displaced and otherwise affected by these projects is increasing on a global scale (Goldsmith and Hildyard 1984, 1986; Scudder 1985; Cummings 1990; Kazimi 1994; Suzuki 1995). For example, the Aswan dam in Egypt, the Volta dam in Ghana, the Manantali dam in Mali, the Tucurui dam in Brazil, Sardar Sarovar dam in India, Itaipu in Brazil-Paraguay, the Sanxia and Three Gorges in China, the Mekong River basin bordering Laos, Kampuchea, Vietnam and Thailand, to name only a few. While not all dam construction results in resistance; for example, the Karibe dam in Zambia, the Volta dam in Ghana, the Aswan dam in Egypt and the Volga Basin project in the former Soviet Union, did not result in any significant form of resistance during the initial stages. However, many large-scale

projects have resulted in the organized effort to oppose construction of these dams, for example; the Chico dam in the Philippines, the Three Gorges dam in China, the Sardar Sarovar dam in India, the James Bay dam in Canada, the Danube Dam in Hungary, the Bakalori dam in Nigeria, Saami opposition to a dam on Norway's Alta/Kauotokeino River and Pangué and Ralco dams in Chile (Goldsmith and Hildyard 1986; Bello, Kinley and Elinson 1982; Kazimi 1994; Suzuki 1995). Protest has also been directed toward the lack of proper planning, compensation, and implementation of these projects.

Goldsmith and Hildyard, in The Social and Environmental Effects of Large Dams: Case Studies (1986), illustrate how locally initiated projects, and smaller scale projects proved to be more successful and less environmentally damaging, as well as having a much less detrimental impact on the population. For example, they described the 'qanats', of Iran, as successfully employed underground conduits, which fell into disuse after the 1962 Land Reform, which changed the peasant-landowner relationship and social organization. The Sonjo of Tanzania have practised a 14 day irrigation cycle which is closely tied to their religion and social organization since 'time immemorial' (Goldsmith and Hildyard 1986:291). The Chagga of Kilimanjaro operate in a similar manner to the Sonjo in that their irrigation agriculture is closely tied to their rituals and

socio-political organization. They too have been practising these methods for generations (Goldsmith and Hildyard 1986). Sri Lanka operates using a complex system of man-made lakes and ponds or 'tanks'.

In these examples, it is shown that social organization, local politics, rituals, community development were all integral to the support of the irrigation systems. In most cases, this support was threatened by the introduction of development [my emphasis] (Goldsmith and Hildyard 1986:296).

Of note is a film entitled The computer and the goddess (1986), made by anthropologist Stephen Lansing when he was researching an integral water system for rice paddy production in Bali. The film describes Lansing's response to government officials who ignored knowledge he had presented in traditional media. The film documents the integration, via a computer system, of traditional ways of water control and development oriented dam technology, which complemented the Balinese government's desire for higher rice production.

Lansing notes that, traditionally, water is controlled by the state in most countries, but in Bali, water has a religious connotation, it is seen as a gift given by the Goddess. The priests of the water temples, therefore, have a crucial role in water management. Dams, which have been built as part of a development scheme, seem to have a relationship with corresponding water temples for the various 'subaks'¹.

Further investigation discovered that traditional methods had been very successful ecologically. This success was dependent on carefully coordinated timing of cycles of harvest and planting as dictated by temple priests and subak leaders regarding irrigation, planting and harvesting.

As a result, this film illustrates, quite clearly, how local initiative, anthropological research, and access to technology could produce a successful development effort. Lansing was successful in having computer models illustrate the relationship between the government's dams and the water temples to both priests and government officials. It was left to these two groups to discover the best way to manipulate the information in order to produce the highest yield of product (Lansing 1986).

Large dams are, most often, imposed by governments and through development agencies for the benefit of a privileged few (urban elites, businesses, government). The electrical power or water for irrigation rarely goes to the population being displaced (Goldsmith and Hildyard 1984, 1986; Kazimi 1994; Suzuki 1995; Cayley 1992). Displacement or resettlement, for the most part, is a very stressful undertaking (Scudder 1985; Colson 1971; Brokensha 1963-4). These factors no doubt contribute to the move to resist in some of the resistance movements currently struggling worldwide.

I have surveyed various theories of resistance in order to isolate factors which may prove common to the resistance movements chosen for closer examination. So far I have looked at the revolutionary agenda of resistance, (Barry 1987; Burbach and Nunez 1987; Collins 1985; Latin American Perspectives 1986, 1987; Norsworthy 1989), liberation theology, everyday forms of resistance and general forms of popular protest (Colburn 1989; Eckstein 1989; Escobar and Alvarez 1992; Gutmann 1991; Haynes and Prakash 1991; McManus and Schlabach 1991; Scott 1985, 1990), some material looking more directly at confrontational movements (Bello, Kinley, Elinson 1982; Drucker 1985; electronic mail regarding Narmada dam and protests 1993-1994; electronic mail regarding Pangué and Ralco protest 1992-1995; electronic mail regarding Hidrovia project in Brazil and protests 1994-1995), as well as some material of a more general nature which addressed issues of human rights to survival in the face of development (Bay 1988; Bodley 1988, 1990; Goodland 1988). There was a need to review as much literature as possible about resistance, as there are many differing, and even opposing views about these movements. Some theories do not take into account any confrontational forms of resistance. Academic works have also been criticized for focusing too much on dramatic, violent and confrontational struggles (Blalock 1989; Oyen 1990). Other theories fall into the categories of

revolution or rebellion, and while it is true that resistance may develop into rebellion or revolution, it does not always transpire; for example, the Sardar Sarovar in India, the Pangu and Ralco in Chile, James Bay in Canada and the Itaipu in Brazil. As I searched further into resistance to hydroelectric projects, it became apparent that one would be likely to encounter both confrontational and non-confrontational forms of resistance. What will follow is a discussion of several theories or concepts of resistance, in order to place this idea in context, and I chose to begin with James C. Scott and his theories of 'everyday' forms of resistance.

Scott's theories are interesting, but also somewhat limited in scope. In both Weapons of the Weak: Everyday Forms of Peasant Resistance (1985) and Domination and the Arts of Resistance: Hidden Transcripts (1990), he focused on theories of 'everyday' forms of resistance, for example, foot-dragging, absenteeism, etc. in Malaysia. His theories are important to some studies of resistance, but are limiting because they do not take into account any forms of resistance which involve confrontation. Scott's theories were used and modified by others in a later series of essays regarding the 'non-confrontational' forms of resistance which seem to be prevalent in South Asia, in Contesting Power: Resistance and Everyday Social Relations in South Asia (Haynes and Prakash 1991).

Matthew C. Gutmann, in "Rituals of Resistance: A Critique of the Theory of Everyday Forms of Resistance" (1993:74-92), pointed out a need for "comprehensive theories of social conflict". He emphasized that, in general, researchers focus on coming up with theories, but little in the way of practical research into strategies of resistance is being done. Scott's theories are based on fieldwork among one group of peasants and involved forms of resistance such as 'foot-dragging' or absenteeism. I found Gutmann's critique of Scott's theories (1993) and Scott's response more illuminating on the whole, because it served to emphasize that more work is needed in the area regarding conceptualizations of resistance. Gutmann (1993) noted that there appears to be an underestimation of the significance of resistance and rebellion, and that there seems to be, as shown in much of the literature, an ultimately conservative view of popular resistance. I would add to this that there do not appear to have been many attempts at comparative analyses of resistance movements either within a region, or between continents or countries. This notion is affirmed by Michael Adas in his essay in Contesting Power (Haynes and Prakash 1991:300). Adas discusses the scholarly preoccupation with peasants and revolutions and peasant-based liberation movements. He states that the people of South East Asia had taken a non-revolutionary path to independence. He saw Gandhi's

non-confrontational approach as being a passive form of resistance (1991:291). This has led to an overall generalization of South Asia resistance being characterized as passive or docile (1991:292). However, Gandhi's approach may have been non-violent, but it also had some distinct confrontational aspects. Some comparative work has been done in this area, but has led to a different focus, particularly on social structure and the dynamics of caste factions. Adas points out that important work has been done regarding non-confrontational protest in South Asia, but

almost all the research and thinking on avoidance responses has been case specific, little concerned with the bearing of the events in question on broader theoretical problems relating to subordination and resistance, and oblivious to work on these patterns in other geographical areas [my emphasis] (1991:298-299).

Only now are researchers beginning to recognize the importance of cross-cultural and comparative analyses (Adas 1991:300). In his context, we would be looking for trends in non-confrontational forms. To expand on his concept, I suggest looking for trends in all forms of resistance, in particular to a similar structural problem, such as hydroelectric projects.

Relentless Persistence: Nonviolent Action in Latin America (1991) edited by Philip McManus and Gerald Schlabach, focused on resistance based on Liberation theology. Of particular interest is the forward by Leonardo Boff, who discussed three forms of violence which he sees

facing the world today. They are; 'originating violence', consequential violence', and 'revolutionary violence'. His definitions were useful in determining the resistance movements I selected for analysis, as well as helping form a general definition of resistance.

Boff's definitions of these forms of violence are as follows:

Originating: has its "roots in the elite institutions of power" (1991:vii). These institutions are threatened by any move toward social change ,which appears detrimental to the balance of their power in the social structure. This results in state terrorism, 'disappearances' and assassinations. (1991:vii)

Consequential: comes out of and as a counter to originating violence. Resistance groups or terrorists (It isn't completely clear as to whether he meant them as the same thing or not) use violent means to demonstrate that they will fight back. It is a vengeful action and some believe it is not productive to change in the social structure. [I think a closer examination of this form of resistance would make this aspect clearer and a comparative analysis would help define aspects of resistance].

Revolutionary: has its roots in the desire for social justice in the face of a "fundamentally unjust social system" (1991:viii). This form desires the full participation of the population. It is also the most complex because it is made up of many fronts; "the popular, the legal, the diplomatic, the political, the pedagogical, the religious, the class, and historically, also the military front" (1991:viii). The military aspect is what tends to perpetuate the violent aspect.

Boff has a profound belief in 'active non-violence' as having a powerful 'mistica', "the conviction that truth, justice and love are ontological" (McManus & Schlabach

1991:viii). He renounces the spirit of vengeance, which is tied to the theology of liberation. Both are dedicated to changing a "violent social reality to one based on justice and fraternity through peaceful means" (1991:ix). He states that the values can be expressed collectively through "barrio assemblies, land recoveries, Christian base[sic] communities, Indian cultural resistance, defense of human rights, farming cooperatives, and the process of 'conscientization'" (McManus & Schlabach 1991:256). The land recoveries and cultural resistance have shown to be quite prevalent in at least two of the case studies and partially in the Tennessee Valley Authority case study.

Barbara Cummings offered an overview of deforestation, damming and resistance in Brazil, in Dam the Rivers: Damn the People (1990). Cummings provided an extensive commentary on the common and destructive features of large-scale hydroelectric projects (floodcycles, increased incidence of waterborne diseases, impact on flora and fauna, and resettlement of indigenous populations).

While she did not focus strictly on resistance, Cummings discussed the poor design and implementation of the Balbina dam and its devastating effect on the Waimiri-Atroari population. This resettlement plan, which resulted in ethnocide, has decimated the population from about 600-1000 in 1981 to 350 as of 1990, due to the "increased pressure on their lands and a greater influx of disease into

the area" (1990:51). Cummings concluded by recommending a search for alternative energy sources (coal deposits, natural gas) and utilizing small scale hydro projects.

Rogério Gribel, in The Balbina Disaster: The Need to Ask Why? (1990) offered a critical review of what he considered to be a social, environmental, and economic disaster. Gribel examined factors and policies leading to the construction of and resettlement due to the Balbina dam and the subsequent, extremely detrimental, impact the dam had on Amazonia. This article reinforces the factors and conditions under which many groups will resist these types of projects. In short, this project caused the loss of primary forest, the loss of wildlife (some endangered species), loss of indigenous land to flooding, the creation of a large body of stagnant water, creating to the increase of water and insect-borne diseases and adversely impacted the downstream riverine communities.

Koenig and Horowitz (1990) offered a preliminary assessment of the relocation of 10,000 people due to the flooding for the Manantali dam in Mali. The resettlement was funded by USAID, as was the research by the two authors. Once again, there appeared to be little resistance in this situation, but factors associated with this dam are similar to factors with respect to other large projects. According to Koenig and Horowitz, this particular project suffered from 'good intentions' on the part of the planners; which

resulted in a lack of participation of settler and host communities in project planning and implementation and in meeting long term land requirements. Koenig and Horowitz assessed the project, for the short term, on the basis of adequate resources to reestablish former standards of living, the existence of kinds of autonomy or the resettled in decisions affecting the relocation process and on "what kind of development infrastructure has been put in place to facilitate sustainable and equitable economic growth" (1990:73). One significant factor they uncovered was that no feasibility studies had been carried out to determine the loss or possible replacement of resources. They note that the success in resettlement was due in large part to the active participation of settlers in planning and implementation. However, the authors found that the project lacks the adequate infrastructure for further economic development. Koenig and Horowitz recommended that planners need to pay greater attention to the traditional resource base and its diversity. Participation appeared high on one level, but responsibility, particularly in housing, lay with external contractors and less on the settlers input. Land allocation and land quality were inadequate, a seemingly common problem in resettlement planning and a significant factor concerning the move to resist large projects.

Lohmann (1990) critiqued a large hydroelectric project

which has the potential to ultimately affect four separate countries and resettle up to a quarter of a million people. The countries involved in the Mekong river basin are, Thailand, Laos, Kampuchea, and Vietnam. The Thai government is particularly anxious to meet the increasing power demands of its industrializing economy, but has met with popular resistance to the project. Thus, the focus of the dam-builders has shifted to the less densely populated areas of Laos. Some common features associated with dam-building are: loss of primary forests, endangered species, fisheries, riverine communities, increase in water and insect-borne diseases, salinisation, flooding and resettlement. Lohmann contends that this project is still under consideration by the various governments involved, as well as other bilateral aid agencies.

Jeremy Seabrook, in Victims of Development (1993), points out several problems with various development projects. What they all seem to have in common is that they were never really designed for those who are supposed to benefit. The emphasis, by developers and governments, on economic growth is providing the world with more and more environmental and development refugees. Seabrook also points out the problem of differing world views and the basic conflict which always occurs when development plans are implemented. He emphasizes the fact that people will resist development plans, and not just in the 'developing

world'. Seabrook makes reference to the various types of resistance and protest that are found throughout the world. They encompass many forms including; violent, non-violent, confrontational and non-confrontational.

Thayer Scudder (1973), in his studies on the impact of resettlement schemes due to large hydro-electric projects, has offered a list of expectable responses of the populations involved. These include; without exception populations resist removal; "compulsory resettlement is a traumatic experience which causes stress and an crisis of cultural identity" (Scudder 1973:51); stress reduces the populations' capacity for innovation which conflicts with governmental attitudes of linking resettlement with development.

Scudder (1985) later identified four stages of development for new settlements in an attempt to alleviate some of the expectable stresses involved with resettlement, but all aspects of his recommendations rest primarily in the hands of those who are planning and implementing the project. This focus may not be directly applicable to the needs or desires of the impacted population.

Scudder concluded his review of some of the expectable impacts of resettlement by stating that developers and

social engineers need to recognize that,

compulsory resettlement is a drastic step, inevitably accompanied by a transitional period of suffering. It should be used as a development strategy only after an intelligent and extensive examination of alternatives has been completed" (1973:61).

Scudder's research (1973, 1985, 1989) has shown that people respond to relocation in several predictable ways (i.e. stress and coping response, risk aversion, concern with subsistence needs, dependency on government for food and service, suspicion of the government and its' intentions and another consequence or condition of resettlement, is the lack of infrastructure for the resettled community). His analysis and framework has lead to important implications for planning, designing and for policies regarding resettlement and settlement. His theories serve to emphasize the fact that people will resist large-scale projects.

John Bodley's Victims of Progress (1990) is a more general look at some of the basic causes of the disappearance of indigenous cultures, some of which are due to the development process, including the hydroelectric projects. Bodley points out that the global race for industrialization has lead to resource appropriation and acculturation. Worldwide characteristics governing the interaction between industrial nations and tribal peoples are documented and examined by Bodley, and it is in this

context that he discusses the resistance by tribal peoples against governmental and development agency's strategies for industrialization (he makes note of the Bodong-Kalinga struggles against the Chico dam in the Philippines). Bodley was primarily concerned with political concerns regarding tribal lands and he notes that there have been recent significant gains by tribal people's organizations which has made the issue one of indigenous rights and self-determination versus state and globalization desires (1990). Land claims often seem to factor in the move to resist. Certainly this is at issue in Latin America, in particular in Chile with the Mapuche-Pehuenche and in Brazil with various groups. We have also seen land claims as an issue in the James Bay Cree fight to reclaim their land which was to be flooded in Canada.

Elizabeth Colson (1971) performed an extensive analysis of the social impact of resettlement due to a large hydroelectric project, specifically the Karibe dam between Zambia and Zimbabwe in Africa. Colson carried out anthropological field work both before (a year) and after the resettlement (including follow-up work of her own as well as with a co-worker, Thayer Scudder). Colson first detailed governmental and political decisions regarding the move and the relationship of both national and local governments to the resettled communities.

She also offered a detailed analysis of the effects of resettlement on kinship ties, political changes, religious ritual, and material gains and losses. In all, she detailed sixteen cases of particular social problems resulting from resettlement. Colson pointed out that many of the effects of relocation are a common phenomena and the 'transition' period may last up to five years before a community feels sufficiently established. This supports Scudder's work and his framework of analysis and is also in general agreement with the findings of several other social scientists, including, Cernea (1986), Koenig and Horowitz (1990), Brokensha (1963-4), Matthews (1976), and Hansen and Oliver Smith (1982).

Goldsmith and Hildyard (1984) offered an exhaustive compilation of the effects of large hydroelectric projects from all over the world. Information was compiled for both developing countries as well as industrialized countries.

The authors criticized resettlement schemes by looking at many which have been implemented and the problems which were encountered. The destruction of traditional ways of life and societal values were discussed as a part of the problem inherent in resettlement schemes. Environmental effects were also detailed and include, loss of agricultural land, loss of primary forests, loss of wildlife, siltation, salinisation, water and insect borne diseases, and destruction of fisheries. The authors noted that

populations are expected to resettle and acculturate often without being consulted prior to the project, and environmental side-effects are expected to be mitigated.

Goldsmith and Hildyard made a general call for action through resistance by environmental groups and other organizations and by these groups lobbying donor governments, banks, and agencies.

Hansen and Oliver-Smith are two anthropologists who have collected studies on resettlement due to both natural disasters and planned change (dams, urban renewal) (1982). This 'world wide phenomenon' is discussed in the ways plans are initiated and implemented and in how applied social science may be valuable in assisting the planning and transition of the resettled communities. Central issues addressed are:

(1) characteristics of the stresses of dislocation and resettlement, (2) patterns of individual and group reactions and strategies, (3) similarities and differences among the cases of involuntary migration, and (4) similarities and differences between, on the one hand, case of involuntary migration, and, on the other hand, cases of voluntary migration and urbanization (1982:1).

Michaels and Napolitano, in The Hidden Costs of Hydroelectric Dams (1988), discussed the significance of the social-cultural impacts of dams and how this has been ignored in hydroelectric projects. The authors pointed out the alarming rate of dam building, while at the same time

the planners and developers ignore or have had "little regard for their impact on the indigenous peoples of the region" (1988:2).

Negative impacts have been shown to be predictable regarding human health (increase in water and insect borne diseases, spread of malaria and river blindness) as well as relocation and environmental impacts (Goldsmith and Hildyard 1986; Colson 1985; Scudder 1985, 1987; Marbek 1986).

Another general look at resistance, although not dam related was by Matthews, in There's No Better Place Than Here (1976), who discussed the threat of resettlement and resistance (successful) to it in three Newfoundland communities. He stated his criticism of 'top-down planning' and regional planning practices at the time because they planned exclusively from economic considerations and ignored social structure, culture and "values of the people for whom they are planning" (1976:48). Matthews described the traditional way of life in these communities and the proposed resettlement plans and the response of each community to this resettlement. He argued for a "strategy of development which would be based on the values of the people affected and which would maintain the way of life they prefer" (1976:135). In effect, they should be able to maintain their 'quality of life'. In order to consider the welfare of the people affected by planning, then their values and choices must be considered. Matthews

saw this as a new perspective which is essential in the training of planners for the economic viability and social vitality of the communities. He called for the need of a strategy which has more social-cultural sensitivity, is more job-oriented (develop labour-intensive industry) and also more resources based.

Howard Norman in Cultural Survival Quarterly (1980), illustrated early Cree attempts to block the James Bay dam. The government demonstrated a complete lack of regard for the needs or rights of the people involved in the resettlement scheme. Only a small number of people were expected to be resettled. However, the Cree's livelihood was destroyed by excessive flooding. Ecological and health factors were once again put aside by the Quebec government and those constructing the dam. The Quebec government saw a cash payment as being an adequate substitute for the native cultural identity with the land. This illustrates, once again, the ignorance and disregard of cultural diversity which is often inherent in the planning of hydroelectric project and resettlement schemes, even in industrialized nations. As we now know, the Cree had relative success with their claim against Hydro-Quebec and the government of Quebec. However, my understanding is that they will have to fight each separate dam, as the need arises. The project was very large and involved the construction of more than one dam. The Cree successfully utilized international

recognition, through United Nations contacts, international appeals and subsequent protest speeches asking for the unification of all indigenous people against the forces of development. Their fight is illustrative of a non-violent but confrontational form of resistance.

In Contesting Power (Haynes and Prakash 1991), a note was made to the effect that very few comparative studies had been done, and certainly not on the scale of comparing regions or even differing forms of resistance. The editors, interestingly enough, note that studies of resistance seem relegated to secondary status in academic scholarship, and complain that when resistance is focused on, it is only on the 'dramatic, violent, and confrontational struggles'. Haynes and Prakash do argue that resistance

...should be defined as those behaviours and cultural practices by subordinate groups that contest hegemonic social formation, that threaten to unravel the strategies of domination; 'consciousness' need not be essential to its constitution (Haynes and Prakash 1991:3).

This collection of essays and much of the general information on resistance, which has been reviewed, seem to suggest a need to look at the problem comparatively, in order to suggest generalizations, and locate contrasts and perhaps discover if there is any regionality regarding strategies or forms of resistance.

The essays in Contesting Power (1991) suggested certain trends of resistance which may be regional in nature (by

focusing on South Asia). It is apparent in the literature coming out of Latin America that particular trends are more common to that region than to others. Initially, I suggest that some resistance movements can be characterized as follows:

South Asia: non-confrontational, 'everyday' forms, subterfuge, ritual, foot-dragging, sabotage, ignoring rules, confrontational.

Latin-Central America: workers struggles, labour movements, liberation theology, violent, non-violent, confrontational, insurgency, revolution, rebellion, communist/socialist movements.

North America: non-violent, violent, confrontational, protests, ignoring rules, conflictual.

The geographical groupings were decided upon by the groupings found in the literature read for this thesis. The literature dealing with South Asia treated resistance as being distinct from that occurring elsewhere. Other literature described various forms of resistance and rebellion found primarily in South and Central America. There are still more discussions of resistance in the Caribbean, Africa and in North America. These three were chosen merely to illustrate the focus which has occurred in those geographical areas and also represent the case studies found later in this thesis.

Once again, as with the material on liberation theology, the focus seemed to be on individual acts, rather than collective forms of protest, that on a long term basis

might have a measurable impact. In Contesting Power (Haynes and Prakash 1991), the researchers used James Scott's (1985) theories of 'everyday' forms of resistance, but modified them to their particular subject area.

Many of these studies do not appear to have considered the full impact of any group's world view, social structure, or needs. The focus, once again, seems to be primarily on individual or class-defined struggles, rather than on collective struggles of communities organized to protest a similar structural imposition; in this case, hydroelectric projects (Scott 1985; Haynes and Prakash 1991; Adas 1991; Escobar and Alvarez 1992).

There are various ideologies which may be associated with resistance movements. These include: Liberation theology, Gandhian approach, general nonviolent action, confrontational, non-confrontational, as well as civil disobedience. Some movements combine features of these different approaches; such as Gandhian techniques with confrontational approaches or liberation theology combined with nonviolent action or civil disobedience enhanced by violent action. Definitions of these will become clear in the discussion which follows.

I will begin by discussing nonviolent action, primarily as it is put forward by Gene Sharp (1980). His intent was

to examine

the nature of nonviolent struggle as a social and political technique, including its view of power, its specific methods of action, its dynamics in conflict and the conditions for success or failure in its use (1980:v).

Sharp's comprehensive study, while not exhaustive, certainly contributes much to the concept of nonviolent action. He catalogued seven sources of social power which can be mobilized. They are: authority, human resources, skill and knowledge, material resources, ideological factors, psychological factors, and sanctions (Albert 1985:16). Sharp discusses various characteristics of nonviolent action which include motives and methods. He illustrates using examples, including Gandhi's struggle for the independence of India, which will be discussed later in this presentation. Methods of nonviolent protest and persuasion come in many forms, such as, public speeches, letters of opposition, declarations by organization, newspapers and journals, group lobbying, prayer and worship, wearing symbols, public assemblies etc. Sharp states that the

methods of nonviolent action, and the organizational requirements, the logistics and the leadership and the discipline, the recruitment of members and the choice of targets, [are used to further] political purpose (1980:xx).

Nonviolent action is a technique employed by those who engage in conflict, but who wish to do so without violence and without passivity or submission. It is a response of

how to act effectively and use collective power effectively (Sharp 1980).

Sharp notes that:

The development of nonviolent action of various types continues throughout the world, arising from different roots, taking numerous forms in response to a multitude of situations and problems. Struggles against war, for civil liberties, for social revolution, against home-grown and foreign-imposed dictatorships, and for a determining voice in their own lives by people who feel powerless are now leading to a continuing application of nonviolent action... In addition, as knowledge of this technique spreads, groups who attempt to suspend constitutional government gracefully or to destroy it blatantly may find themselves confronted with unexpectedly effective resistance [my emphasis] (Sharp 1980:98).

Mohandas Gandhi has been associated with a nonviolent action which is

a technique for waging conflict efficiently, with as little damage as possible to the human person and effecting the fullest development of the human personality (Albert 1985:9).

Gandhi saw the need to be willing to serve justice even at great personal sacrifice. One tactic to gain international attention for one's struggle would be fasting; something Gandhi employed to considerable effect. He was influenced by Jainian ideology, which seeks to atone for the act of living, by doing penance at the end of one's life (starving oneself) for causing suffering to other living beings (Albert 1985). Essentially, Jainism is a spiritual search which attempt to do as little damage to others as possible during a lifetime (Albert 1985:13). Gandhi's

guiding principles are employed, with some variations, in some of the resistance movements associated with hydroelectric projects and irrigation dams. One such movement following the guidance of Gandhi's principles is Narmada Bachao Andolan (or 'Save the Narmada'). This rapidly growing movement appears to have two leaders, one is a social worker and activist, Medha Patkar, who has been involved since 1985 with the beginning of the resistance movement. The other is a man considered to be the moral and spiritual leader, Baba Amte, once a disciple of Gandhi, who became involved with the movement in 1988. This movement will be discussed in detail in a case study later in this thesis.

Christian Bay and Charles C. Walker, in Civil Disobedience: Theory and Practice (1975) discussed some concepts which may prove useful in the description and analysis of resistance movements. For the authors, 'civil disobedience', refers to

any act or process of public defiance of a law or policy enforced by established governmental authorities, insofar as the action is premeditated, understood by the actor(s) to be illegal or of contested legality, carried out and persisted in for limited public ends, and by way of carefully chosen and limited means (Bay and Walker 1975:15).

This disobedience may be active or passive; it may also be a matter of doing what is prohibited or of failing to do what is required (Bay and Walker 1975). These actions would

fall under the concepts about 'everyday forms of resistance', laid out by James C. Scott (1985).

Bay and Walker indicate that the notion of 'civil disobedience should be kept separate from that of 'non-violent action'. The non-violent concept, by definition, rules out violent acts while the civil disobedience does not, as they have defined it in Civil Disobedience: Theory and Practice (1975).

It seemed to Bay that

... that a rigid adherence to non-violent means of protesting some situations may amount to acquiescence in continued violence and oppression. (1975:28).

Bay and Walker also discuss the 'ethics of responsibility', which would involve anticipating as many consequences of alternative actions before committing to a course of action, be that nonviolent or partially violent (1975:28).

Some methods of resistance discussed by Bay and Walker include some of the following, often in combination:

Constitutional Action and Propaganda
petitions, deputations, lobbies. Letters to press, leaflets, pamphlets, canvassing, public meetings, exhibitions (Bay and Walker 1975).

Others of a more symbolic nature include; parades, marches, vigils, silence, fasts. Supplementary actions may include; slogans, songs, symbols, badges, salutes. Counter measures to these actions can involve negotiations and the

investigation of facts in conflict situation, as well as journals, briefings, conferences, rallies, prayer meetings, purificatory acts, pledges. Economic actions may take the form of strikes, whether they are token, go-slow, sit-in, or stay-at-home varieties. Boycotts of goods, services, business, military sites, as well as social boycotts may also be employed (Bay and Walker 1975:47).

Hubert M. Blalock Jr. in Power and Conflict: Toward a General Theory (1989) stated that due to the complexity of conflict processes, there is no one theoretical work which provides 'definitive general answers'. He states that there is a need to examine numerous variables, and as different conflicts are "described and analyzed within a reasonable common framework" (Blalock 1989:viii-ix), then the cumulation of knowledge will be more complete and systematic so that we can shed understanding on conflict processes and appreciate the idiosyncratic features of those which involve diverse kinds of parties or environmental settings (Blalock:1989).

The problem is not so much with a paucity of theoretical positions on conflict as it is with the shortage of careful, quantitative empirical studies that involve comparable measures of critical variables (Blalock 1989:3).

Blalock has further noted that:

Not only does the literature of immediate concern involve a wide range of social science disciplines and theoretical orientations, but it is also diverse in another important respect. A part of the literature is highly systematic, involving mathematical models or other relatively formalistic approaches. Another portion, perhaps the bulk of the literature, is largely descriptive in nature, being concerned with the details of single case studies or at most a comparison of three to six historical instances involving social conflicts.... Finally, there is an extensive literature having a heavily ideological flavour, usually being focused primarily on special kinds of conflict, as for example that between social classes or between races or ethnic groups. (Blalock 1989:4).

The following chapter will expand on the thesis stated in the Introduction in Chapter One. The relationship between resistance and hydroelectric dams will be discussed and the method of comparison will be explicated prior to the chapter including the descriptive case studies.

Chapter Three

A Restatement of the Problem

In this thesis I propose to demonstrate that, simply stated, similar structural conditions (for example, imposition of and construction of large dams) will result in similar types of organized resistance (similar strategic responses) cross-culturally. In addition to this basic hypothesis, I question whether structural conditions, ethnicity, and/or the level of organization will influence the form or nature of the resistance. I intend to examine this issue using a comparative method over three case studies. These will be the Pangue and Ralco dams in Chile; Sardar Sarovar in India; and the Tennessee Valley Authority in the United States.

The relationship between resistance and imposed dams

During the Great Depression of the 1930's, the United States used dam construction for employment in their pursuit of progress. This was seen to be the largest undertaking at that time. By the end of the 1930's, the United States was an acknowledged leader in dam construction. The Hoover dam is still considered to be one of the most impressive ever built (Suzuki 1995). By the 1950's, thousands of dams were being built to supply energy and for industrial expansion.

By 1995, 77% of all the rivers of the Northern Hemisphere have been dammed (Suzuki 1995). Dam technology

has been exported, by the United States and Canada, around the world, especially to developing countries. Dams are considered to be primary symbols of power and progress. The world's other great rivers, from the Ganges to the Nile, have been or soon will be involved in this 'promise of progress' (Suzuki 1995).

Four million people are displaced worldwide due to these megaprojects and it is increasingly difficult to find replacement lands and livelihoods. For example, the Three Gorges dam in China will displace 1,400,000 people; the Itaipu dam in Brazil will displace 50,000 people, including 5500 Guarani Indians; the Tucurui, also in Brazil, will displace 20-30,000 people and flood two Indian reserves; the Teribe-Changuinola dam in Panama will displace 2,000 Guyami Indians and displace 60,000 Indians by the end of the project; and in Canada, the Slave River project would require the resettlement of 10,000 Dene Indians (Goldsmith and Hildyard 1984:15-16). Suzuki (1995) noted that, most often, the communities closest to the projects are the ones who receive the least. Stagnant reservoir water often causes major health problems, such as malaria, river blindness, and many other diseases (Goldsmith and Hildyard 1984; 1986; Scudder 1985; Hansen and Oliver Smith 1982; Suzuki 1995).

Positive effects of dams are seen to be increased energy or power; short term jobs and better irrigation.

Less well known are the detrimental effects of large dams which include a number of diseases associated with reservoir water. These reservoirs produce fertile breeding grounds for diseases, such as, typhoid fever, hepatitis, malaria, onchocerciasis (river blindness), and schistomiasis (carried by parasitic flatworms and spread by infected snails) (Goldsmith and Hildyard 1984, 1986; Hansen and Oliver Smith 1982; Chaiken 1983; Colson 1971, Scudder 1985; Michaels and Napolitano 1984; Marbek 1986; Suzuki 1995).

It has been noted that there is a rising tide of opposition facing many governments regarding dam construction (Hildyard and Goldsmith 1986; Kinley, Bello and Elinson 1986; Chaiken 1983; Chaiken and Fleuret 1990; Suzuki 1995; Kazimi 1994). For example, the James Bay Cree in Canada; the Akawaio Indians of Guyana; the Guarani Indians in Brazil; the Bodong-Kalinga in the Philippines; the Mapuche/Pehuenche Indians in Chile; and the landless, peasants, farmers and indigenous people in India over the Narmada river basin projects. The chronic mistreatment of displaced or resettled populations has intensified their participation in resistance. Some gatherings in India have had as many as 40,000 people participating. One such movement in India, called Narmada Bachao Andolan or "Save the Narmada", has drawn attention to not only their own situation, but to how megaprojects affect people in all developing countries (Suzuki 1995; Kazimi 1994).

Resistance to dams is a global occurrence, with one of the largest movements currently taking place in India with other examples occurring in Canada, Brazil, Chile, and the Philippines, to name only a few.

The following section will be a description of the comparative method chosen to analyze the variables from the three case studies.

Methodology

To undertake a comparative analysis of resistance movements, I became familiar with various discussions of the methodology. The sources were primarily from social and cultural anthropology (Lewis 1955; Nadel 1952 and 1962; Eggan 1954; Sarana 1975; Schapera 1953), but I also examined the method from a sociological perspective in a collection of essays edited by Else Oyen (1990).

Nadel discussed 'concomitant variation' as being

...the analysis of social situations which are at first sight already comparable, that is, which appear to share certain features (modes of action, relationships) while differing in others, or to share their common features with some degree of difference (1959:222).

Nadel suggested there are differences in approach and in the scope of interest, but that there are essentially

three lines of inquiry for the method of co-variation. They are as follows:

1. Consider a single society at a given time and analyze the broad variations in particular modes of action or relationships occurring in that society.
2. Consider several societies of a generally similar nature which differ in certain modes of action or relationships; more precisely, we could here compare either different and perhaps contemporaneous societies, or the same society at different periods, if these exhibit some limited cultural change.
3. Compare several, perhaps numerous, societies of widely different nature yet sharing some identical feature; or different periods, showing radical change, in the life of the same society (Nadel 1962:226).

Else Oyen reinforced the need for comparative studies, in her collection of essays, by stating that,

The call for more comparative studies has its roots in very different kinds of forces....The major external force is, of course, the growing internationalization and the concomitant export and import of social, cultural and economic manifestations across national borders. Labour and people flow between countries in ways we have never seen before, and the establishment of international organizations having no country as their natural base increases steadily (1990:1).

The collection of essays in Comparative Methodology (Oyen 1990) discuss sociological theory and practice in the context of 'cross-national' comparisons. There are different interpretations of comparative research which are discussed while examining the differences in goals and contexts. Oyen suggests that the value of comparative research lies in the development of an understanding of each

countries' set of general values in terms of their goals (primarily in terms of cross-national comparison, particularly of political systems) (1990).

Henry Tuene, in his article "Comparing Countries: Lessons Learned" (Oyen 1990:38-62) states that:

All disciplines use 'temporal and/or spatial logics of comparison': literature, art, language, biology, psychology, medicine, law. It is one of several 'logics' pursued to unify fields of knowledge and disparate experiences; others include moral purposes (godly or human betterment), the methodology of science (principles of knowing), quantitative analysis (organization of discrete observations), and ecology (conflict and system equilibrium) (Oyen 1990:38).

In this same collection of essays, Fernando Calderon and Alejandro Piscitelli point out five major influences on comparative research into social movements in Latin America. They are:

1. Theories of social movements, as developed by Alain Touraine, have had an impact on theoretical and critical thinking more than at a methodological and empirical level.
2. Class analysis has been elaborated, broaching significant nuances and differences.
3. At the community level, new practices have emerged which have influenced the social scientists. Ideas of reciprocity, cooperation and solidarity seem to have amplified.
4. The transformation of the Catholic Church and Communitarianism has had a strong influence on large groups of social researchers promoting analysis in terms of participant observation and action research, involving the researcher in the actor's goals.
5. A more recent research trend is based on the plurality of the behaviour of the actors, in the refusal to totalize social processes, giving importance to new social movements. (Oyen 1990:88-89).

Calderon and Piscitelli also note that social movements involve multiple behaviours and have developed heterogeneously within geographical areas (in Oyen 1990). They note that social movements "do not have predetermined teleological goals, but redefine them with every struggle encountered" (in Oyen 1990:90). They have isolated several areas with which to survey social movements in Latin America. Much of this depends on the current crisis being struggled against, the role the movement plays in the development or continuation of the crisis, focusing on areas of conflict and why the movement is questioning the status quo, the role of the movement in everyday life and participation in decision making, as well as how these movements relate to the social forces and to the politics of the particular nation/region involved (Calderon and Piscitelli in Oyen 1990:91). This interrelation allows for a more global understanding of social movements.

In all, the discussion of comparison is shown to be a relevant and useful approach for studying conceptualizations of resistance. This is particularly true if one is examining resistance to one form of imposition, that of large-scale hydroelectric projects.

Conflict processes and associated questions of power struggles and resistance are exceedingly complex. A portion of what has already been discussed gives an indication of that complexity. Adding to the complexity of this topic is

the lack of practical, empirical, and quantitative research involving comparable measures of essential variables. There does seem to be a range of theoretical orientations, Marxist, 'new social movements', liberation theology, everyday forms of resistance, for example; as well as some literature which is primarily descriptive in nature (Blalock 1989; Oyen 1990). Unfortunately, there seems to be little in the way of comparative analyses of resistance on any level (Haynes and Prakash 1991; Oyen 1990).

Social conflict will involve a consideration of 'power' in those conflicts. Albert (1985) has defined 'power' as

the capacity of human beings to organize or manipulate their environment (including other human beings, their thoughts, motivations, needs, and desires, as well as their creations and artifacts) for human ends. In all* major world ideologies and religions, power is seen as neither a positive nor a negative concept. [* except in Jainism, which sees power as having a negative aspect] (1985:12).

Oscar Lewis discussed "Comparisons in Cultural Anthropology", by examining literature about comparison produced during a five year period (1950-1954). Lewis contends that there is no one 'comparative method' in anthropology, and this is supported by a number of papers examined in his article (Schapera 1953; Eggan 1954; Lowie

1953; Nadel 1951). Of these four essays examined, Lewis states that,

Nadel offers us by far the most systematic and comprehensive treatment of comparative method. He defines it in terms of the systematic study of similarities and differences through the use of correlation and co-variation. It is therefore not a distinctive method of anthropology, but one shared by all the sciences (Lewis 1955:58).

In his analysis, Lewis considered five 'broad dimensions of comparison'. They are; (1) the location in space of the entities compared, (2) the content, (3) the aims of the comparisons, (4) methods of obtaining data, and (5) research design (1955:59).

Comparative studies within a single culture area seem, by and large, to be interested in controlling the greatest number of variables and in relatively modest and limited goals. Global comparisons generally have more ambitious goals, and seek world-wide typologies or evolutionary sequences (Lewis 1955:59).

Gopala Sarana looked at The Methodology of Anthropological Comparisons: An Analysis of Comparative Methods in Social and Cultural Anthropology (1975). Sarana cited Herskovits as having the insight to assert,

that the term method indicates more than the procedures utilized to execute a given research project (1954:5). By definition a method implies a goal or an end to be achieved. It is a system, a complete set of the rules of procedure, employed in realizing the given goal. By appropriate choice, the suitable research techniques become a part on any such set of rules (Sarana 1975:11).

Comparison is involved, in one form or another in "all analogy, classification, definition, and division" (Sarana

1975:12). There appear to be three basic questions that one should ask for comparative analysis. They are:

1. What should one compare?
2. Why should one compare?
3. How does one make comparisons? (One way is by use of illustration; following this procedure a set of already earmarked categories or a preconceived scheme of interpretation is supported with illustration selected according to the 'conveniences' of the researcher) (Sarana 1975:15-17).

Sarana notes that the other two ways to make comparisons are; to compare within a limited discourse without sampling or to use an explicit statistical procedure based on sampling for a global scale (1975:17). Overall Sarana suggests that,

A comparative method has four aspects: technique(s), purposes (goals), areal coverage, and units of comparison. A correlation is found between the techniques of comparison and the areal coverage of the material (1975:74).

I chose illustrative comparison as the method best suited to my purposes and to the data already collected. I felt this method would corroborate my contention that one will find similar strategies of resistance to a similar structural imposition. For this thesis, I selected hydro electric projects, and three case studies involving Chile, India and the United States.

Comparative procedures are not to be used as explanations; comparison is "a means for concept formation and concept clarification" (Sarana 1975:108). The task is

to use the method to add to generalizations, rationalization or systematization "through which one should be able to find out the laws that 'govern the functioning of natural processes'" (Sarana 1975:108).

In light of the previous discussions, and after some consideration of methods of comparison, I chose the method of illustrative comparison as being the most useful for the analysis of variables of resistance. I basically wanted to use comparison to illustrate my point about similar strategies to similar structural imposition. The case studies will bear this opinion out. All discussions of comparison varied somewhat, and some are more detailed than others, but essentially, comparison is a very useful tool when searching for similarities to make generalizations.

In my examination of resistance movements, which might be selected for analysis, I kept in mind Nadel's concept that these might, at first examination, already "appear to share certain features (modes of action, relationships)" (1959:222). I already suspected that resistance movements might show certain similarities when in opposition to a similar structural feature. Therefore, I decided to compare at least three resistance movements, due to time considerations, which were of "widely different nature[s]" yet shared "some identical feature[s]" (Nadel 1962:226). I thought a more useful comparison would be one which selected samples from different countries or regions, in order to

broaden the base of comparison. One case study, the Tennessee Valley Authority, was chosen for its historical nature and the fact that it took place in a developed country. This was intended to provide a 'test' for the other case studies to be selected. On the basis of available information, the type of information and access to primary data via the electronic mail system, the other two studies were selected. These two were; the opposition to a series of dams beginning with the Pangué and Ralco in Chile, and a long-standing opposition to the Sardar Sarovar in the Narmada Valley in India. Other cases were considered (these included; Innu resistance to hydroelectric projects; opposition to the Tucuruí in Brazil; the Hidrovia series of dams in Brazil and Paraguay), but it was found that they had little information available, or had broad gaps in material already collected. Most of these cases do not have any readily apparent previous research into opposition and resistance to hydroelectric projects. The only exception to this was the Narmada case, which has had at least two documentary films made (discovered after it was already selected for examination) and one or two volumes put forth by the World Bank publications, and by the Review committee and published in 1994.

After a descriptive presentation of the three case studies, I will isolate variables of resistance for illustrative and comparative purposes and provide comments and conclusions for each case study prior to offering my overall conclusions for this research.

Chapter Four

Presentation of Data

Introduction

I will present three case studies, geographically, in order to present a comparison of resistance. Each case study will be followed by a summary and commentary of the issues raised during the discussion. I will begin with the protests in Chile, followed by the protests in India, and conclude with the resistance in the United States.

A: Case Study: Pangué dam (and associated sister dams)- Chile

On Dec. 6/91, indigenous groups expressed concern about another proposed hydroelectric project in southern Chile on the river BioBio. The Pehuenche communities of the region would be directly affected by the building of a second dam, Ralco. It was projected that over 200 families would be displaced and their lands and homes would be flooded by the completion of this project (CHIP email 6 December 1991).

The Pangué dam site is 300 miles (600 kilometres) south of Santiago and at the mouth of the Alto BioBio region. The dam has been under consideration since 1972.

In December of 1991, President Aylwin visited with Huilliche people in Southern Chile in order to promote new legislation regarding indigenous peoples.

Huilliche leader, Efrain Antriao, pointed out some of the aspirations of his people at a public meeting attended by some 3000 people,

We remain standing, together with our fight for the land which was ours before this country was called Chile. A Mapuche without land is not a Mapuche, which is why we are here before you now, to demand our right to the land which gives us our reason to live...The desire to recuperate our lands, culture, freedom and dignity, is alive within us (CHIP email 14 December 1991).

Environmentalists began voicing protests in the 1980's. Alto BioBio is also one of the most seismically active regions in the world, something which is of concern to those opposing the dam. There is concern that impact studies have not been adequate (Ruhe-Schoen email 5-6 April 1992).

Rodrigo Valenzuela, anthropology professor at the University of Chile and Austral University, was hired to study the socio-economic impact. His conclusions were that construction should not be carried out due to the negative impact the proposed dam would have on the Pehuenche culture. Valenzuela also expressed doubt about the benefits that temporary work on the dam would have for the Pehuenche (Ruhe-Schoen email 5-6 April 1992).

The Pangué was expected to flood nearly 1,000 acres and create a reservoir over 320 feet deep. It was uncertain, as of April 1992, how many people it might displace. In August of 1992, the Pangué construction was on hold. Seismic activity increased in the area of the Pangué project, which

reaffirmed the fears of the environmental groups (CHIP email 4 August 1992). It was pointed out, and hoped that the decision regarding the James Bay project in Canada may adversely affect positive decisions about the Pangué (Ruhe-Schoen email 5-6 April 1992).

In conjunction with protest about the dams, the Mapuche are becoming heavily involved in aggressive land claim mobilizations (CHIP email 16 March 1992). Since 1991, the issue of land claims have become very prevalent for the Mapuche, who have continued to re-occupy lands they say belong to them, they have blockaded forestry operations, and protested construction of the hydroelectric plants.

By April of 1992, opponents of the Pangué dam stated that it was outmoded technology and asked for the cancellation of the project. The Grupo de Acción por el Bio-Bio (GABB) was and continues to be a leader of the opposition. One of their major concerns is the negative environmental impact the Pangué will have on the Pehuenche Indians who inhabit the area. The Pehuenche population was estimated as being from between 3,789 to 5,148 people in 1992 (Ruhe-Schoen email 5-6 April 1992).

Grupo de Acción por el Bio-Bio (GABB) has generated international support from the following groups; the Environmental Law Alliance Worldwide, the Sierra Club and the National Resources Defense Council (Ruhe-Schoen email 5-6 April 1992).

Robert F. Kennedy Jr. and associated members from the Natural Resources Defense Council (NRDC), also offered their support to the environmental groups protesting the Pangué project on the BioBio River. Environmentalists, led by Grupo de Acción por el Bio-Bio (GABB), hoped to stimulate public discussion and debate about the Pangué project. The NRDC has had fifteen years experience in the promotion of alternatives to large-scale hydroelectric projects. It was hoped that significant international support might influence the government and its agencies regarding proper impact studies (CHIP email 11 March 1992).

In contradiction to the continued protest of Grupo de Acción por el Bio-bio and other opponents of the dams, Pehuenche communities affected by the construction of the hydro-electric power station on the upper Bio-Bio announced, in April 1992, their full support for the Pangué project. The representatives expressed their support by stating that they endorse the project because it represented a source of work and therefore a way for the communities to obtain the resources necessary to support their families. These representatives also stated that they had met with the executives and representatives of the Pangué company. They were reassured that the company and the project had the support of "experts that respect where we live, respect our way of life and our customs" (El Mercurio email 24 April 1992).

Speaking at the ceremony Toha, President of the National Energy Commission, said, "the decision to construct the Pangue dam on the Bio-Bio has already been taken and there will be no change" (El Mercurio email 24 1992).

Others of the community would still show their opposition to the dams. Mapuche leader Floriano Cariqueo, director of the Mapuche Development Program (Promur), argued that indigenous peoples should have some say in environmental policy. He pointed out that the Pangue dam most clearly illustrated the conflict between development and care of the environment (El Mercurio/La Nacion email 26 April 1992).

Grupo de Accion por el Bio-Bio considered taking legal actions to protect the environmental integrity of the BioBio area (CHIP email 29 April 1992).

Grupo de Accion por el Bio-Bio was criticized by the newspaper El Diario, from Santiago, Chile. The group was accused of not having the statistics to back up their claims, and El Diario accused them of wanting a "glorious defeat instead of a negotiated compromise" (CHIP email 4-5 May 1992).

In July of 1992, the news was announced that the Pangue project would not be cancelled. At the same time, environmental studies of the Pangue project were heralded as being more thorough than any previously done in Chile. Activists spoke positively about a seminar held which included government officials, business executives and

environmental groups. There had been no precedent for such an open forum on Chile's energy issues (CHIP email 4 July 1992; CHIP email 9 July 1992).

Scientists from the University of Concepcion expressed concern over the effects of the Pangué dam on the downstream river bed. This announcement was followed by a financial evaluation of the Pangué dam. Resistance has continued regarding the Pangué by ecological groups (CHIP 17 July 1992; CHIP email 24 July 1992).

The International Finance Corporation, a division of the World Bank, noted that there seemed to be a lack of debate over the Pangué project (CHIP 28 July 1992). There were some points of agreement between the IFC and GABB regarding this issue. As of November 1992, local Pehuenche communities were being trained in 'new' agricultural techniques, by the Pangué Company. This training harkened back to the reference earlier of the Pehuenche compliance with the operators of the project (CHIP 28 July 1992). The Pangué firm, responsible for the construction of the dam, had invested \$140 million to train Pehuenches (40 men and 15 women are to receive training) (CHIP 19 November 1992).

House committee members surveyed the Pangué project in November 1992, at which point;

The caciques [leaders/chiefs] of the Alto Bio-Bio criticized the project because it is not creating long-term jobs, it is having an adverse effect on their culture and traditions and it is destroying their sacred forest (CHIP 2 November 1992).

On November 18, 1992, the Mapuches resumed their actions against the Pangué dam. Between April and November, the Mapuche communities had been involved more frequently with land claims than in protests against the Pangué dam.

The Mapuche organization Consejo de Todas las Tierras announced a series of actions yesterday to impede the construction of a hydroelectric plant on the high Biobío River. The rounds of protest will be inaugurated by marches through Temuco, Valdivia, Osorno, Concepción, Chillán, Santiago, and Valparaíso from November 20 - 25. The demonstrations are also intended to obtain the dissolution of legal actions against 120 Mapuches arrested on charges related to land occupations and membership in an illegal organization. The organization members were forcibly removed from land they occupied in the Ninth Region. In the area of the high Biobío construction began on roads to facilitate access by construction crews and equipment to the remote forest site where the dam is to be built (CHIP 18 November 1992).

On December 18, 1992, the International Financial Corporation approved funding for the controversial Pangué dam project. A week previous to this, Grupo de Acción por el BioBio ran a full page ad which challenged the necessity of the dam and questioned the reliability of the environmental impact studies (CHIP 18 December 1992).

The World Bank approved a 120 million dollar credit to finance a Chilean hydroelectric plant which had been protested by environmental, humanitarian, and indigenous groups. The Chilean Commission of Human Rights, the Institute for Ecological Policy, the Committee in Defense of Flora and Fauna, the Centre for Alternative Development and the Mapuche-Pehuenche Centre all came out in opposition to

the Pangué project. They agreed that the dams would devastate a significant ecological region and destroy Mapuche-pehuenche culture. These groups also pointed out that since the government was considering new legislation regarding indigenous and environmental issues, it would be prudent to wait to make any further decisions about this project (Anonymous email 21 December 1992).

Human rights groups placed a request for U.N. observers to monitor the Pangué dam project. There was great concern that there would be human rights violations concerning the Pehuenche communities who live in the region (CHIP 5 December 1992).

There would be a need for legal defense if Mapuches were charged with illegal occupation of lands in southern Chile during the month of June 1992 (Anonymous email 9 January 1993).

The Mapuches symbolic land recuperation in 1992 were met with the detention of one hundred people by the police. According to one Mapuche, "if we lose the land, we lose our language and slowly we will also disappear" (Anonymous email 26 Nov 1993).

Formed in April 1990, Aukin Ngulam is one of many indigenous organizations fighting for political autonomy and sovereignty for the Mapuche people (Anonymous email 9 January 1993).

The attempts to protect the river BioBio weakened with the new tactic of indicating a desperate need for the

electricity for the cities, by projecting an increase in electricity prices (Anonymous email 9 January 1993). The river lies in the southern region and the power would be exported, northward, to urban centres, such as Santiago (CHIP email 16 January 1993).

A new law has been approved by the House of Deputies; its intention is to give new respect to indigenous peoples and to integrate them into the nations' development (CHIP email 23 January 1993). Four basic aspects are considered:

1. The recognition of indigenous identities, cultures and traditions. This involves legislation against racial discrimination.
2. The protection of indigenous lands, and the creation of a fund of subsidies which will permit indigenous peoples to purchase land.
3. A fund for indigenous development, which will stimulate indigenous participation in Chile's modernizing process.
4. The creation of a National Corporation of Indigenous Development (CHIP email 23 January 1993).

However, an indigenous leader, Jose Santos Millao, was not satisfied with the new law and declared that he would call for a national plebiscite if indigenous groups in Chile were not recognized as a separate "people" (CHIP 23 January 1993).

The construction of the dam was approved by the Chilean Supreme Court. The 'Junta de Caciques' (Chief's Assembly) representing the seven Pehuenche communities of the region and board members of the 'Centro Mapuche-Pehuenche del Alto

Biobio' (Mapuche-Pehuenche Center of the Upper Biobio) decided to organize a cultural event for Oct 12/93 as a symbolic event for the defense of the cultural identity and lands of the Chilean indigenous people. Also involved was the Coalition of Social Organizations for the Defense of the Pehuenche People and the Biobio River (Nunez email 17 September 1993).

Ecological groups denounced the proposed construction of a new hydroelectric project on the BioBio river, the most important river in the country. Environmentalists from the Assembly for the protection of the Upper BioBio, interrupted a seminar convened for "La Comision Nacional de Energia (CNE)" in order to protest against a new major dam project, Ralco (Anonymous email 18 December 1994 ²).

This same group of people, during the government of President Patricio Aylwin (1990-1994), participated in a fruitless campaign in opposition to the construction of the hydroelectric dam, Pangue, on the same river. The construction of this new dam, reported to have an anticipated output of 570 megawatts, would flood 3.400 hectares and as with the Pangue, cause the displacement of people from communities of Pehuenches and farmers. In the case of Ralco, some 670 people are expected to be displaced (Anonymous email 18 December 1994).

The Executive Secretary of the CNE, Maria Isabel Gonzalez, indicated that these groups that have joined the

Assembly for the Protection of the BioBio river withdrew from the seminar after the interruption without hearing any replies to their report/denunciation because "at bottom, there were not prepared to hear our reason nor to debate seriously" (Anonymous email 18 December 1994 ²).

All reports have been submitted and the next project is prepared to go ahead. The Pangué was only the first of five planned hydroelectric plants along the BioBio.

"La Red de Acción por el Biobio", one of the assembled groups, carried out a campaign by lobbying for international support, with the support of environmental organizations, but had no success blocking further credit to Endesa, the company to carry out construction (Anonymous email 18 December 1994; Zenteno email 6 February 1995 ²⁴³).

These various groups declared after the seminar,

We demand the suspension of the construction of large hydroelectric plants on the Biobio river, so long as they [the Government and Endesa and the CNE] are not delivering information to the public about these projects, and to assure the rights of the Pehuenches and their lands and cultural identity (Zenteno email 6 February 1995 ³).

Interpretation of Data:

Mapuche/Pehuenche culture has been found to be traditionally integral to their relationship with land. It is strongly held that the proposed and partially completed hydroelectric projects will adversely affect their culture and destroy their land. Those resisting have asked for the cancellation of the Pangué project, as well as the other proposed dams based on their concern for the negative environmental impact these projects will have on the Mapuche/Pehuenche Indians who inhabit the area. Unfortunately, the resistance movement was unsuccessful in halting the construction of the Pangué. As of November 1995, the Pangué is 70% complete (Chatterjee email 17 November 1995). The various groups, environmental and indigenous, continue to oppose the Ralco and proposed other dams. Grupo de Acción por el Bio-Bio and the Mapuche groups demand,

the suspension of the construction of large hydroelectric plants on the Biobío river, so long as they [the Government and Endesa and the CNE] are not delivering information to the public about these projects, and to assure the rights of the Pehuenches and their lands and cultural identity (Anonymous email 17 September 1993).

An unexpected development early in the resistance was the statement, in April 1992, in which the Pehuenche community gave its full support to the project, citing jobs, resource acquisition and the fact that their company professed to respect their way of life and customs. They

were to receive agricultural training as a part of the agreement. This might be interpreted as the incidence of a successful negotiation on the part of the state and the dam builders. Clearly some of the Pehuenche people believed the promises being made. However, in November of the same year, this same community announced the resumption of their opposition to the Ralco project. A very significant action, but unfortunately one with scant information attached to it which would better clarify why they changed their minds. One can only presume that they met with a lack of cooperation from the construction company and became disillusioned with the process. In any case, while not opposing the dam per se, this community and others remained active in the pursuit of land claims. This appears to be a significant factor with this resistance movement, and often with other indigenous resistance. The Mapuche association with the land is strong and obviously, thus, figures into many of their decisions regarding the opposition.

Grupo de Accion por el Bio-Bio and the other organizations have pursued with the resistance, with the participation of indigenous organizations, through demonstrations, slogans and legislative actions.

The negative effects speak for themselves, and are reflective of those commonly associated with large hydroelectric projects and were detailed earlier in the thesis. For example, the loss of land and home,

resettlement, environmental and ecological concerns, destruction of indigenous culture, the impact on the downstream river and communities, and the destruction of wildlife and valuable forest.

The forms of protest are also fairly clearly indicated in the descriptive case study. The forms indicate a non-violent, but clearly confrontational opposition (land claims, demonstrations) (Canihuante 27 April 1995 ⁴). Also of note is the support the resistance has generated among international organizations. This enables the resistance to have a larger profile and visibility which no doubt factors in the negotiations with the State or the construction company.

Some countermeasures taken by the Chilean government included new legislation regarding indigenous peoples which was meant to show support through constitutional reforms. However, once the decision was made to build the Pangué, the government and construction company had no intention of turning back. The project received approval of the International Finance Corporation and also of the World Bank. This resistance movement has set a precedent for other resistance movements to follow. They are legally challenging the World Bank through its' own grievance panel set up to mediate in cases such as this (Chatterjee email 23 November 1995). In January 1996, I received electronic mail which indicated that the Pehuenche community in the

Ralco dam area, were awaiting word of an injunction against the Empresa de Electricidad (Endesa) regarding construction of the dam. Mauricio Huenchulaf, director of the *Corporacion Nacional de Desarrollo Indigena* (Conadi) [National Corporation of Indigenous Development], stated that the lawsuit was based on a law passed during the transitional democratic government of Patricio Aylwin (1990-1994), entitled *la Ley de Proteccion, Fomento y Desarrollo Indigena* [Law of Indigenous Protection, Promotion and Development]. The problem inherent within the lawsuit is the difference between this law and one passed in 1982, during the regime of General Augusto Pinochet, which decreed authorized expropriation of "owner-indemnified" land for the promotion of large energy projects (Guzman email 1996⁵). However, Huenchulaf expressed that legislation obliges the government to consider the opinion of ethnic groups about these kinds of projects. He announced, in January, that Conadi was prepared to take any measure necessary to ensure that the Pehuenche community would prevail over the business interests associated with the Ralco hydroelectric project (Guzman email 1996). This confirms the dedication of the resistance movement and implies continued resistance to further hydroelectric project along the BioBio.

B: Case Study: The Narmada River Basin Project- India

There is a tide of opposition facing many governments regarding dam construction. One of the leading movements is the Narmada Bachao Andolan (also referred to as "NBA" or "Save the Narmada"), in India, which is illustrating the real costs of the large dams and becoming one of the largest resistance movements to hydroelectric projects.

In India, the Narmada river ("giver of bliss") is considered one of the holiest by Hindus. For practical, as well as spiritual reasons, much of India's rural and tribal populations have settled along the banks of the river, and their lives are inseparably linked to the rhythms of the river (Suzuki 1995; Kazimi 1994).

The Narmada Bachao Andolan protest began with the construction of the Sardar Sarovar. This project is located in Gujarat state, in the Narmada River Basin. The Indian government received 450 million dollars from the World Bank in 1985 in order to initiate the Sardar Sarovar project. Almost a quarter of a million people would be profoundly affected by Sardar Sarovar. This megaproject is expected to create a reservoir of over 200 square kilometres. Two other states will be affected as well, Madhya Pradesh and Maharashtra. The construction began in 1985, shrouded in secrecy, the people to be affected had not been told of the planned project (Suzuki 1995; Kazimi 1994).

Participation in resistance has intensified in India, due in large part to this recent movement of protest to the Sardar Sarovar. Some gatherings have had as many as 40,000 people in attendance. The movement, Narmada Bachao Andolan, has drawn attention to not only their own situation, but to how megaprojects affect people in all developing countries (Suzuki 1995; Kazimi 1994; Anonymous email 11 February 1995; Anonymous email 7 January 1995; Anonymous email 13 December 1994; Udall email 10 June 1993 and 3 and 4 August 1993; Sant email 23 April 1993; Gray email 19 September 1992).

Protests began in 1984, and with the first protest the government invoked the Indian Official Secrets Act to keep out journalists and to prohibit gatherings. However, the protests continued (Suzuki 1995; Kazimi 1994).

The ongoing struggle of Narmada Bachao Andolan has involved mass protests, peaceful demonstrations, as well as a 200 kilometre walk, by 3000 people, to protest the Sardar Sarovar dam. This struggle represents cultural survival and social justice, as well as a battle for human rights in a democracy. David Suzuki stated in "The Dammed" for The Nature of Things, that "even in a democracy, human rights rarely figure in large scale development schemes" (1995). Opposition to Sardar Sarovar spread when people realized the government would not give them adequate resettlement planning. This issue is a primary factor driving the resistance movement. Many had already been resettled and

these 'oustees' returned to their original communities and joined in the opposition. The Narmada Bachao Andolan movement's leader is Medha Patkar, who, for almost a decade, has led non-violent followers to become one of the most powerful and largest movements seen in India since Gandhi's struggle for Indian independence (Suzuki 1995; Kazimi 1994). Medha Patkar is a former social worker who became concerned by the almost total ignorance in which villagers were being kept; especially about something which was to have such a major impact on their lives (Suzuki 1995; Kazimi 1994). She gave up her doctoral studies in order to move to the valley and bring the information, on foot, to the villages in the Narmada Valley. Patkar, in "The Valley Rises" (documentary by Kazimi 1994), has stated:

instead of holding seminars and talking about alternative development models, I moved from community to community, walking through their lands, learning about the people and getting used to their lifestyle, building relations and rapport, learning language, making people feel I am also part of the valley.

Patkar's involvement began in 1985 when she realized people were not being informed about the development megaprojects. Patkar thought people should get organized and fight for their life and livelihood. By 1988, Patkar recognized the impossibility of resettling those who would be displaced. Since 1988, the newly formed Narmada Bachao Andolan has opposed Sardar Sarovar from the village level all the way up to the Indian government and the World Bank.

Displacement is a major issue for the movement, which is also concerned with economic and environmental problems.

One of the more dramatic events Narmada Bachao Andolan undertook was a 200 kilometre march which began on December 25th of 1990 and involved a gathering of some 6000 people. This march met at the Gujarat border, and opposition continued into January 1991. The period offering the most detail is from 1990-91, during which a documentary entitled, The Valley Rises (1994) was filmed by Eli Kazimi. Corroborating material has been gathered from other sources, primarily electronic mail via the internet, dating from 1990 to 1993, and also from a television program aired February 1995 entitled, The Nature of Things; The Dammed, hosted by David Suzuki who examined megaprojects in general, and the Sardar Sarovar in particular.

A march was begun in December 1990, with over 3000 people participating. They gathered by the river Narmada, preparing to take an oath which would begin a new chapter in their struggle:

We the people of the Narmada Valley, tribals, farmers, and labourers, to save our lives, and the lives of future generations, our culture and our nature, to save all this, we are heading out today (Kazimi 1994).

The marchers announced their plans, which involved staging a peaceful protest in order to halt construction of the Sardar Sarovar dam, during the three months prior to December. They marched towards the site over 200 kilometres

away, and gathered supporters from villages due to be submerged and other supporters from all over India (Kazimi 1994; Udall email 3 and 4 August 1993; Kazimi 1994; Suzuki 1995). This march and its supporters followed a path that Mahatma Gandhi had laid out during his successful non-violent campaign against British laws. Gandhi understood that non-violent political action was the means for a dramatic event (Kazimi 1994). He managed to capture the imagination of India and of the world while paving the way for Indian independence. Similarly, Narmada Bachao Andolan has a moral and spiritual leader. He is Baba Amte, a former disciple of Gandhi's who is bringing a direct link to this tradition of non-violence. He became involved in 1989, when he was moved by the struggle in the Valley. He moved to the banks of the Narmada and vowed to drown with the people there if the waters rose.

An emissary from the government of Gujarat paid the protesters a visit in an attempt to dissuade them from continuing toward the Gujarat border. This emissary, once opposed to the dam, is now allied with a 'pro-dam' lobby (of which the Gujarat Chamber of Commerce is a part) (Kazimi 1994). There are 100,000 people in Gujarat who support the pro-dam movement and it is anticipated that there will be a confrontation before Narmada Bachao Andolan has an opportunity to enter Gujarat. The pro-dam supporters are individuals with business interests in the dam; those who

believe that development will aid their region and provide them with much needed irrigation and potable water; and those who have been convinced by the government and the bureaucrats that there are no other solutions to the problem and that Narmada Bachao Andolan threatens their prosperity. In fact, the planned irrigation will reach those large business interests who are mono-cropping and will not likely impact on the smaller farms or even the rest of the community.

Many of the anti-dam protesters came from Nimad, a valley of rich plains; illustrating that this movement represents a diverse and complex economic group made up of Hindus and Muslims, rich farmers and peasants, landless labourers and tribal people. It represents 'mainstream rural India' (Kazimi 1994). The economic base of the movement, tractors and all, lies in this part of the valley. The land in question is extremely fertile and even the World Bank had to concede, in an early report concerning the project, that this land is among the most fertile in all India (Kazimi 1994).

On December 27th 1990, Patkar arranged for information to be sent to America, to ensure that the world knows what is going on in India. She recognized that it was extremely important to have global support and linkages for such an undertaking and sees that it is the international news attention which is a major influence in getting the Indian

governments' attention.

The protesters found that police had been brought into the area of the border and erected barricades. The Gujarat government had no intention of letting marchers cross the border or to reach the dam.

The marchers reached an historic moment on December 30, 1990. There were at that time, 6,000 supporters of Narmada Bachao Andolan, separated by geography and religion, language and ethnicity, and social divisions. They joined on this date as one, chanting:

Come let us struggle, give each other support,
no one will move, the dam will not be built, we
all are one, 'adivasis' and farmers are one,
farmers and labourers are one, think as you say
so.. We are one (Kazimi 1994).

Armed plainclothes police mixed with the press at the border area and just beyond that a 'prohibited zone' had been declared. If people crossed the line, they could be arrested.

The strategy of pitting people against people is a new one for the government (Kazimi 1994). However, Patkar and Amte and the 6,000 others had no intention of turning back. They became more determined than ever to have the government conduct a review of Sardar Sarovar. An independent review of Sardar Sarovar is a primary goal of Narmada Bachao Andolan and the focus of this particular protest.

Something of note is the fact that support for the protestors came, in 1990, from one of the highest ranking

officials in government, B.D. Sharma, Commissioner of Scheduled Castes and Tribes [Dr. B.D. Sharma resigned as Commissioner soon after the march, and since has been working as an activist in the tribal areas]. He stated, "no one in this society should 'pay the price'. We must ensure that affected people gain by development" (Kazimi 1994).

On January 2, 1991, the leaders decided to push forward to the border. The hands of each of 25 marchers were tied, palms together, to show their non-violent intent. These marchers were met by the Executive Magistrate of Gujarat, who forbids them to move ahead as "section 144" is in force here. This section refers to forbidding large gatherings or protests and is part of the Official Indian Secrets Act.

The marchers asked about the people they saw behind the barricade and border point, "doesn't the law apply to them?" (Kazimi 1994). They were told those particular people (pro-dam) were outside the zone. The marchers continued to press forward, stating: "This applies to us and not to them. This cannot happen. We are unarmed people, our hands are tied" (Kazimi 1994). The government indicated to those at the border that it wanted no show of repression as long as the national media are present, but the marchers refused to untie their hands or to return to camp.

The pro-dam people flaunted their special relationship with the authorities by entering and exiting the prohibited zone at will. Some were bussed in, provided with food, and

some were even paid for their services.

On January 4, 1991 more female police were brought in. In response, Patkar indicated that they will need more women protesters in the front of the crowd. She stated that they need to confront the pro-dam protesters, and that without that action nothing could happen for Narmada Bachao Andolan's cause.

If it looks like it's going to be violent, just sit. You can take as long as you want, but you must be seen to be trying to move forward, and not being violent (Kazimi 1994).

After Patkar's statement, the newly formed crowd moved forward slowly, chanting ... "Whatever the attack--We will not strike back" (Kazimi 1994). The Indian government responded by employing illegal means to break up the protest by having police pose as civilians within the crowd and by having armed intelligence officers intervene.

In all, six activists were arrested and charged with assaulting government officials and inciting a riot. Almost two hundred Narmada Bachao Andolan protesters managed to get inside the prohibited zone. By nightfall, democracy disappeared. Approximately one hundred and sixty people were beaten and pushed onto buses and bussed away. Later, it was discovered that they had been given no food or water. The movement's non-violence has often been answered by the violence of the police. On January 5, 1991, the one hundred and sixty reappeared, having walked back throughout the

night.

By January 6 1991 the movement had reached a new stage. Several protesters prepared to begin a fast along the roadside. Medha Patkar and three others began the fast, allowing only water to be given to them. They planned for this to be an indefinite fast, because as their health deteriorated the pressure on the government would build. It was felt by Patkar that this action would force the government to negotiate. Further support was found as the government indicated it would be willing to discuss resettlement , but it was not open to a review of Sardar Sarovar.

The National press had come out in favour of the movement and there were rallies all around India in support of Narmada Bachao Andolan. There was also support around the world as protesters and non-governmental organizations pressured their governments and the World Bank. In the second week of January, over 2000 people remained in the camp, and Bhopal survivors were arriving to offer their support (Kazimi 1994).

January 17th, 1991, the chief secretary of Gujarat was sent to negotiate with the fasters and other protesters. However, after two days, only a standoff was reached.

On January 22, 1991, two hundred police attempted to move in and arrest Patkar for attempted suicide. Cameras were present and very suddenly a considerable and unexpected

resistance from the women present arose. Thus, the police were forced to retreat.

January 28th heralded the news that international support had helped Narmada Bachao Andolan achieve a World Bank review. With a drink of juice, Medha Patkar broke her fast.

The following description of further tactics and strategies of resistance by Narmada Bachao Andolan was gathered primarily via electronic mail from the Native-L listserve from September 1992 to February 1995.

At the end of 1992, 200,000 indigenous tribal people and small-scale farmers were threatened with eviction from their land as the Indian government forged ahead with a highly controversial 12 billion dollar dam project, the Sardar Sarovar on the Narmada River (McIvor email 5 December 1992). One farmer, who would be affected by the megaproject, travelled to Norway to tell the world of the destruction of the Sardar Sarovar project. He stated that he and thousands of others would stay and drown rather than

move hundreds of kilometres to an uncertain future (Sant email 26 April 1993).

People from 18 Vadgam families evicted during the past week have been summoned to give evidence before the Gujarat High Court on Monday in the case of contempt of court against the government. The NBA claim that the government has broken the stay order against forcible evictions in the Gujarat submergence villages which has been in force since last year. The NBA believes that the summons are a "landmark happening" as this is the first time that oustees have been asked to give evidence to the High Court (Gray email 29 September 1992).

On the 17th of July 1993, Patrick McCully made reference as Narmada Bachao Andolan announced at press conferences that unless a "comprehensive review process gains momentum", the Samarpit Dal (Save or Drown Squad) will go and sit in the valley on Friday, 6th August (McCully email 17 July 1993). At this conference, Medha Patkar stated that "we will not stand by while the villages are being submerged. We have no option but to go back to the villages and fight along with the people against this injustice" (McCully email 17 July 1993). The activists also emphasised that the struggle is not only to stop the Sardar Sarovar Project but also to ensure "just resettlement" for the people displaced by the Bhargi, Tawa and other dams in the Narmada valley which have caused a "human tragedy". The representatives of Narmada Bachao Andolan stressed that the government was totally unprepared for the submergence and did not know how high the waters would rise or which land would be affected (McCully email 17 July 1993).

Authorities did not allow any outsiders, including journalists, into Vadgam and Manibeli. Himanshu Thakker of the Narmada Bachao Andolan indicated that the police were arresting anyone moving around in Vadgam; the navy was patrolling the river in motor launches; and 400 police reinforcements were waiting in Kevadia (Anonymous email July 17, 1993).

On July 17th 1993, at least 90 people were arrested in Ahmedabad when they attempted to protest against the destruction of Vadgam. The victims of the illegal submergence demanded justice. A first judicial victory was won on July 18 1993: the Gujarat High Court directed the state government to give Rs2,500 (US\$90) as an interim relief payment to the 18 Vadgam families whose houses and belongings were washed away in a flood due to the backwater effect of the dam (Ferrie and McCully email 21 July 1993).

The movement intends to continue the strategy of fighting through the use of the judicial system.

On July 17, 1993 Narmada Bachao Andolan announced their new strategy:

- 1) The Government must abide by its commitment to set up a group to review SSP.
- 2) The whole of the Narmada Valley Development Project must be questioned (Bhargi etc.).
- 3) The Government must react to the serious violation of fundamental rights that the submergence has caused. If the Government continues the project without taking into account the views of the affected people, then the people will struggle to the end: the final sacrifice (Ferrie and McCully email 21 July 1993).

Girish Sant noted that the professed advantages of the project are : (i) drinking water to the drought prone area, (ii) irrigation to substantial portion of Gujarat, and (iii) total installed power capacity of 1,450 MW. (Million Watts) (Sant email 26 April 1993). The two states other than Gujarat will only benefit through the power generation at Sardar Sarovar dam of 1,450 MW at cost of \$ 833 Million.

Kenneth Walsh, on August 3, 1993, announced an urgent action which was to be undertaken by Medha Patkar and the Narmada Bachao Andolan. This action involved "Save or Drown" squads who were committed to drowning themselves in the rising waters of the Narmada, unless the government agreed to negotiate for resettlement packages and for further review of the Sardar Sarovar project. Patkar announced that members of the first squad, led by herself, would immerse themselves in the waters of the Narmada on August 6th 1993 if construction did not stop and if the Indian government did not take steps to make a truly comprehensive review of this megaproject (Walsh email 3 August 1993). This vow had to be taken seriously, said Walsh, as it was made in the spirit of non-violent opposition and sacrifice (Walsh email 3 August 1993).

Narmada Bachao Andolan made a 'major political breakthrough' on the ninth of October when Medha Patkar and B.D. Sharma [ex-Commissioner for Tribals and Scheduled Castes] spoke to a rally of 5000 Dalits (literally

"oppressed peoples" -- people from Scheduled and Officially Backward Castes) in Ahmedabad, the chief city in Gujarat. The rally was organised by Gujarati Dalit groups, who as "socially displaced" people declared that they felt solidarity with the displaced people of the Valley (Anonymous email 21 October 1993).

Medha Patkar began touring India, speaking at public meetings in many cities, including Bangalore, Madras and Calcutta. The tour illustrated that Narmada Bachao Andolan commanded tremendous respect wherever it travelled (Anonymous email 21 October 1993).

Water Minister V.C. Shukla agreed to meet four of five demands put forward by the anti-dam coalition, Narmada Bachao Andolan. In a written memorandum to the Baroda, Gujarat, NBA office late on August 5, 1993, the Government agreed:

- 1) to accept that the 5-member panel was charged with a "review" rather than just "discussions" surrounding the project.
- 2) to a binding time frame for the review. The panel will have 3 months to complete the review of all issues related to the project.
- 3) to make the report public within a month of the group submitting it to the Government of India.
- 4) to withdraw the condition of needing consensus between the five members (Triedman email 9 August 1993).

A last NBA demand, to change the composition of the group, was not met. Since August 2, 1993, approximately 1,000 people have been arrested, and some have been mistreated, in huge police operations in riverbank villages

and in Baroda. The Government of Gujarat publicly stated its opposition to a review and refused to participate in any panel. Members of the Gujarat Legislative Assembly have threatened protests on the scale of the Narmada Bachao Andolan's if construction is delayed (Triedman email 9 August 1993).

In August of 1993, it was noted that:

Medha reached Manibeli today, Monday, despite the efforts of the Gujarat authorities and the Maharashtra police, who have sunk the NBA's boat. Medha finally persuaded the police to take her across the river in their motor launch and then gave a long lecture to the assembled police who met her on the south (Manibeli) riverbank about their unacceptable behaviour. The Police have been using the houses which were flooded last month as latrines, and have stolen personal belongings from the houses and taken firewood without the villagers' permission. Although most of the hundreds of people detained over the past week have now been released, 32 people arrested in Manibeli on August 6 are still being held in Dhule jail. An unknown number of them are reported to have been badly beaten and refused medical treatment. The whereabouts of a further 6-7 people arrested in Manibeli are unknown (Triedman email 9 August 1993).

Julie Triedman for the International Narmada Human Rights Panel, Baroda announced that Narmada Bachao Andolan had called off the threatened "jal samarpan" (self-sacrifice by drowning) by Medha Patkar and other activists after receiving written assurances from the Central Government that several key demands for an independent review of the Sardar Sarovar project would be met (Triedman email 9 August 1993).

Information received on the 8th of December 1994 discussed the deteriorating condition of two of the four activists on a 17 day hunger strike protesting the construction of the Sardar Sarovar dam on the Narmada River. The charismatic leader of Narmada Bachao Andolan, Medha Patkar, was one of those most seriously affected. It was estimated that she had lost at least seven kilograms of weight and was found to be too weak to sit up and talk. Besides Patkar, three of the activists are 'oustees' of the Sardar Sarovar project and have set up a tent at a major traffic intersection in the capital of Madhya Pradesh state, Bhopal. This state contains many of the indigenous people who will be displaced by the megaproject. The Sardar Sarovar project, which was partly funded by the World Bank, was, in 1994, already half complete, but it has been plagued with controversy because of local opposition to the project through Narmada Bachao Andolan and the question of reliable environmental and economic impact reports (Anonymous email 17 December 1994).

Some 41,000 families will lose their homes and livelihood due to the Sardar Sarovar project, nearly three quarters of them from Madhya Pradesh, where the fasting and protesting was taking place (Anonymous email 10 December 1994; Anonymous email 13 December 1994).

In 1994, the demands of Narmada Bachao Andolan include; publication for the public of a four month old review of the

project and all other projects should be subject to reviews as well, and rehabilitation and compensation for 'oustees' of the project. Patkar has refused to eat or drink until the government agrees to the movement's demands. As of 1994, this is the fifth fast she has participated in, in order to negotiate demands with state and national government representatives. It was stated at this time, that if the fasters were removed and force-fed, there would be four others who would take their place on the hunger strike (Anonymous email 17 December 1994). There are also support groups in Bombay and Delhi who were prepared to go on a hunger strike as well, said a representative of Narmada Bachao Andolan (Anonymous email 17 December 1994).

A State team, led by Singh Deo, planned to leave Bhopal to visit some of the rehabilitation sites which the government has given to the displace villagers, mostly indigenous people (Anonymous email 17 December 1994).

Some of these villagers planned to return to their homes, but some intend to come back to Bhopal to hold a meeting on resettlement issues at the completion of this state led visitation. The police were brought in and forcibly removed the four fasters and took them to a hospital to be force-fed. They were removed early in the morning, before any supporters of Narmada Bachao Andolan could gather (Anonymous email 13 December 1994). Activists preparing to go on a march were arrested on the same day.

Narmada Bachao Andolan were taking legal actions to secure the release of the four protesters from the hospital. Four more activists, people who have been displaced by the Sardar Sarovar project, have taken the place of the removed activists. More supporters gathered in Delhi to hold a sit-in protest in support of their demands (Anonymous email 13 December 1994).

More recently, a fast by Medha Patkar, Seetarambhai and Kamlabehn of Narmada Bachao Andolan ended on December 16, 1994.

Patkar, in January of 1995, stated, "We are challenging it [the Sardar Sarovar] as a symbol of faulty development policies which are taking a heavy toll of tribal life and culture" (Dharmadhikary email 10 January 1995). This statement came after she called off a nearly month long hunger strike in December, with government assurances that it would take up the issues raised by Narmada Bachao Andolan. Narmada Bachao Andolan's struggle continues.

Interpretation of Data:

Since 1948, about 20 million Indians, people called 'oustees' have been forced from their land and resettled due to megaprojects, primarily dams. They have lost homes, communities, temples, and landmarks. One should not be too surprised then, to find that many Indians regard the coming of a megaproject as the beginning of the end of their way of life (Suzuki 1995; Kazimi 1994). For example, the Bhargi dam was completed in 1990 and this irrigation dam submerged 160 villages and displaced almost 100,000 people from their homes (Suzuki 1995).

The Bhargi dam is a typical example of these megaprojects. The construction and flooding of the reservoir for the Bhargi, whose primary function was for irrigation, destroyed almost as much fertile land as it was intended to irrigate. It had caused serious consequences. Also, now we see more people drifting to the city to join countless others seeking temporary work (day labour) and to end up living in slums, even further marginalized.

Common lands have traditionally been used by tribal (or 'original dwellers') people to produce and gather fuel, medicinal plants, and food. They are dependent on these lands for their subsistence and upon the Narmada river for fresh water. People forced from these lands usually have no access to common land or even to water for personal and livestock water use (Suzuki 1995; Goldsmith 1992).

Often governments talk about compensation regarding the submergence of lands. Generally, there is an initial offer of money plus five acres of land, and possibly some employment for one person per family. In the case of the Bhargi dam, before the flooding, the Indian government offered 10,000 rupees/acre; after flooding, the offer dropped to less than 2,000 rupees. For most of the people, the government failed to live up to the original offer (Suzuki 1995).

Vijay Paranjpye, of the University of Pune, India, participated in a conference in Stockholm regarding criticism of the continuing construction of major dams. He pointed out that even with the widespread criticism of India's massive Narmada project, the Western view of major dam projects has yet to be significantly challenged. Paranjpye also pointed out that in developing countries, the numbers of people to be displaced may be significantly larger than those in developed countries. For example, while a few thousand people may be displaced by a dam in Canada, the Tehri dam in India threatens to displace 80,000 people. In India alone, dams have displaced 30 million people (Dahmen email 8 August 1994).

Activists cited the Theun Hinboun dam in Laos, the Pangani dam in Tanzania and the proposed Pangué dam on the Bio Bio river in Chile as projects implemented in the face of unanswered questions regarding their social and environmental impact [my emphasis] (Dahmen email 8 August 1994).

Generally speaking, the people who are to be affected are not consulted. This is especially evident in India where six years after the flooding, people still meet to discuss how to make the government meet its obligations. Over 20 million people have been displaced from ancestral lands since 1950 (Suzuki 1995).

The desire on the part of many governments, including India, to participate in megaprojects seems to have led to a "culture of project approval" (Suzuki 1995) within the World Bank, due to its financial affiliation with megaprojects in the past and present.

Andrew Steer, Director of Environment for the World Bank has said,

These projects can greatly benefit development. Evidence is overwhelming, that done right, infrastructure projects can dramatically help develop and can help reduce poverty. There's overwhelming evidence that when you bring irrigation it has, not only a dramatic impact on food supply, but on the incomes of poor rural people. There's overwhelming evidence that when one brings electricity, that leads to employment growth (in Suzuki 1995).

Given this kind of institutional attitude about development and megaprojects, it is small wonder that these projects are being met, more and more, by resistance. It is the urban elites within any country who define the terms of development and define the solutions. It is also the urban elites who incur the World Bank debts, in the developing countries, in the name of development, but it is the poverty stricken, indigenous and marginalized populations who are

expected to pay for it. These elites decide that electricity and more water are the need. therefore, dams, large dams in particular, are the favoured solution (Suzuki 1995; Goldsmith and Hildyard 1986). Researchers such as Thayer Scudder (1985, 1987), Elizabeth Colson (1971, 1985), David Brokensha (1964-5), Miriam Chaiken (1988), Oliver Goldsmith and Nicholas Hildyard (1986, 1987), Eli Kazimi (1994), and Sanjay Sangvai (1995), have shown that these projects do not lead to overall employment growth for the affected region (with the exception of the construction period); do not reduce poverty, in fact, further marginalization is caused by displacing communities and irrigation for the food supply is not necessarily intended for local consumption, but rather, for export to the cities and outside the country. The people affected most by these projects rarely even receive the promised electricity (primarily in developing countries). Often the electricity is earmarked for the cities or urban centres, or is being exported to neighbouring countries (as in the Hidrovia series of dams between Brazil and Paraguay; or the James Bay dam in Canada).

The resistance movement which has been mounted against this project is impressive, and participation is increasing as the struggle continues. The government wanted water to be used in a 'proper' way; weighing their costs and benefits. The pro-dam activists could see no other way out;

they consider that at least they are 'facing reality'. The positive effects are considered to be irrigation, drinking water for drought prone areas in Gujarat and some amount of electricity. Cotton, tobacco farming and industrial centres are intended to receive the water first, as opposed to the drought prone areas further north. Completed canals were expected to destroy twice as much land as the dam will. The canals will displace 13,000 families, however, the government does not consider that these families are to be directly affected by the dam; therefore, these affected families are not entitled to any resettlement package.

A resettlement site (Malu) in Gujarat, is typical of most resettlement camps that these people are protesting. The camps are made up of tin shacks, unsanitary conditions, and there is a lack of access to fresh water. The atmosphere creates disillusionment with the government because of broken promises, for instance, some buildings, in Malu, were built for officials, but no one has been living in them for two years. The displacement of family and community causes the workload of women to be changed for the worse. For example, the women have to fetch water from long distances, where before their cattle could range free and drink from the river and they could live near the river for access to fresh water.

The movement's 10 year struggle has succeeded in halting construction of the Sardar Sarovar dam, the

reconsideration of all issues and a promise that the state of Madhya Pradesh would submit an affidavit to the Supreme Court regarding this stand (Sangvai 1995). In conjunction with these events, the Supreme Court ordered that the review be made public. The Narmada Bachao Andolan had to pressure, confront and appeal to the government throughout the entire process. Something which took one year for them to complete.

On July 13, 1993, a Narmada update revealed that houses in Vadgam, as well as the Manibeli temple, were submerged by the rising waters of the Sardar Sarovar dam. Eleven villagers and activists were arrested, in direct contravention to a Gujarat High Court stay order against forcible evictions in Vadgam and the other Gujarat submergence villages. All of those arrested were released after being taken to higher land in nearby towns (Anonymous electronic mail, July 17, 1993).

It was also revealed that the police and dam authorities had been harassing people who were living in a group of houses a couple of kilometres upstream from Vadgam, which are at imminent risk of submergence. A number of people from these families had to move to Kothi, a village beside Kevadia Colony, where they were staying with Narmada Bachao Andolan supporters.

Authorities did not allow any outsiders, including journalists, into Vadgam and Manibeli. Himanshu Thakker of

the Narmada Bachao Andolan indicated that the police were arresting anyone moving around in Vadgam; the navy was patrolling the river in motor launches; and 400 police reinforcements were waiting in Kevadia (Anonymous email July 17, 1993).

Tom Gray, on the 29th of September 1992, noted that India was awaiting a World Bank decision regarding continued funding for the Sardar Sarovar dam, a controversial dam project on the Narmada river. During the wait, both anti-dam activists and the government were trying to sway the vote in their favour (Gray email 29 Sept. 1992).

At the same time, four Indian activists left for Washington to participate in an anti-dam meeting that was being organized by international green groups supporting Narmada Bachao Andolan's struggle to stop big dam projects on the Narmada.

A spokesperson of the Narmada Bachao Andolan told IPS news service that the activists hoped the meeting would influence the World Bank to accept the recommendations of an independent study ordered by the Bank in 1991, to reappraise the project.

A quarter million small farmers and landless peasants will be uprooted by the Sardar Sarovar dam project in Gujarat, which also involves the two neighbouring states of Madhya Pradesh and Maharashtra.

The Sardar Sarovar is only the first of 30 big dams

proposed under the massive Narmada river valley scheme.

Also intended are over 3,000 medium and small dams.

Opposition to the Narmada dam project has gone on since the plans were first known, because the dam, if built, "...would submerge 40,000 hectares of land and displace over 100,000 people; 60,000 tribal people who depend on their lands for their entire way of life", according to the estimate of Survival International (Erskine email 17 May, 1993).

Villagers from Manibeli, a village being submerged by the rising waters of the Narmada, proved their unshakeable courage and determination by adhering to their slogan: "We will drown before we move". (not only in Manibeli, but also in other villages) if the police had not intervened. After being pulled out of the water, the villagers preferred to stay in the rain than to go into tin shed 'flood shelters' built by the police (Anonymous email 21 July 1993). Some fifty people were left in the village when Medha Patkar secretly rejoined them. Three villagers left to tell outsiders what had happened and to participate in a large protest being held in Delhi (Anonymous email 21 July 1993).

There is a strong solidarity between the people in the valley; the villagers from Madha Pradesh were ready to lend their fields to those who have lost their own so that they can fend for themselves; the refugees can also rely on a welcome in the other villages (Ferrie and McCully email 21

July 1993).

It is obvious that this case study contains far more information than the other two. However, although the list of variables may be more comprehensive, I do not feel that should skew the data in an overwhelming fashion. The Narmada Bachao Andolan began protests in 1984, and these have continued up to the present date of 1995. Not one, but two documentaries were available to me, both of which focused on the 200 kilometre march. Neither of the other studies seems to have drawn the same kind of attention that Narmada Bachao Andolan has. That may be due, in part, to the sheer numbers of people to be affected in the Narmada Valley. It may also have something to do with the fact that this movement seems to have discernable leadership, while the Chilean resistance is formed of several diverse groups, and does not appear to have a single leader represented. And the Tennessee Valley Authority affected several states and therefore does not appear to have had a large, unified force of resistance, but rather organized groups of landowners and indigenous people who resisted the two projects described in the case study.

Narmada Bachao Andolan is a resistance movement which has been struggling in opposition to megaprojects for more than ten years. There appears to have been a continuity of leadership, continuity of commitment to the cause, rising numbers of participants; international support and some

degree of judicial application. This varies somewhat with the variables found in the other two case studies, but overall, the majority of factors are consistent.

Intimidations, jailings, false charges - are met with the same spirit of non-violence. Yet, taking the government to court, large demonstrations, fasts, and the other methods listed above clearly indicate a commitment to non-violence, but also a dedication to confrontational practices which has garnered the Narmada Bachao Andolan international support and recognition, as well as some legislative and judicial successes.

C: Case Study: The Tennessee Valley Authority- United States

The Tennessee Valley Authority began in 1933 with plans to further the development and economic growth of a particular region in the United States. Historically, we are looking at an undeveloped area within a developed country; and this encompassed parts of the following states; Alabama, Georgia, Kentucky, Mississippi, North Carolina, Tennessee, and Virginia.

The original intent was to 'electrify the South' through development projects including hydroelectric dams, irrigation dams, navigational projects, and reservoirs along the Tennessee River and its tributaries (Hargrove and Conkin 1983). The Authority is composed of three members of a board who are appointed by the President of the United States, each for a term of nine years.

The original concept was that the Tennessee Valley Authority

was to provide navigation, flood control, power generation, reforestation, and economic development in a region touching seven states. TVA today provides electric power to over six million people, principally in Tennessee, Mississippi, Alabama, and Kentucky" (Chandler 1984:1)

The Tennessee Valley Authority was mandated with a

policy for appropriation which

defines the extent to which the Authority engages in a program of land acquisition for public purposes incidental to a major project: the construction of a series of dams and the consequent impounding of large bodies of water along the course of the Tennessee River and its tributaries... The Authority was assigned power to acquire real estate 'for the construction of dams, reservoirs, transmission lines, power houses, and other structures, and navigation projects at any point along the Tennessee River or any of its tributaries; and a condemnation procedure was established (Selznick 1966:186-187).

Therein lies a much of the reason for opposition to the projects proposed by Tennessee Valley Authority . Since 1933, the Authority has been deciding upon and implementing projects, and the populations to be displaced or otherwise affected have been voicing their opposition. Chandler has stated that,

...Environmentalists, with progressive roots, have attacked TVA for ignoring the external costs of this policy--erosion from coal strip-mining, and acid rain, for example... Farmers of all political stripes, having lost land to TVA reservoirs, have denounced TVA water projects supported by industrialists and developers (1984:2).

Two dams in particular are indicative of the kinds of problems the Tennessee Valley Authority are associated with and to the forms of resistance taken to counteract these impositions. These two projects were, the Tellico Dam and the Columbia Dam.

For example, for the Tellico Dam project,

hundreds of farm families were dispossessed of their land and livelihood in order to make way for a reservoir that is not cost-effective and will provide only recreation and second-home

development. TVA moreover is repeating the Tellico experience on the Duck River, with the Columbia Dam. TVA concedes that the project will not return the cost of the investment but plans to complete it anyway (Chandler 1984:11).

This particular statement refers to the continuing pleas, by those opposing these and later projects, to regulate the Tennessee Valley Authority, because, until this occurs, the population will be subject to the "whims of three directors who cannot be held accountable either to voters or to politicians" (Chandler 1984:11).

One reason given for the original acceptance of the idea, of these dams, was the catastrophic flooding that the areas experienced and that this may have 'conditioned' people to accept "dams and reservoirs as the answers to flood control" (Chandler 1984:77).

The incidence of resettlement and removal has been described as being full of very mixed reactions. However, in most cases, the Tennessee Valley Authority did meet with resistance, although they usually had the courts on their side.

Chandler noted in his article "The Tellico and Columbia Dams: Stewardship and Development", in Goldsmith and Hildyard's (1986) The Social and Environmental Costs of Large Dams:

The whole prospect of appraisal and removal was unsettling. Reactions were very mixed. Some sold quickly and were glad to get the price; others, convinced they should get more, had to decide whether to sell eventually or go to condemnation

proceedings. A small number (96 families of a total of nearly 3,000) did nothing, and were forcibly evicted when the rising waters behind the dam made their continued presence dangerous. TVA, of course, was anxious to have its appraisal prices met, but sometimes their efforts met with resistance... (Chandler 1984:79-80).

Much of the resistance seems to have been on an individual level, people threatening the Tennessee Valley Authority with shotguns unless they got off the property; but most had legal claims waiting in courts during the process of expropriation. In many cases these people had already received legal counsel and were simply awaiting a court decision. However, ultimately, the Tennessee Valley Authority's right to 'eminent domain' was upheld. Often, environmental, as well as, economic studies demonstrated that it would be "cheaper for society to use floodplain management rather than move the farmers" (Chandler 1984:83)

With the Tellico Dam it was a case of a 'non-power' project for regional development. It was intended for navigation and recreational purposes. It was decided to build the project in 1963 with the promise of 40,000 jobs, controlling floods, providing navigation, developing the shoreline and "promoting flat-water recreation" (Chandler 1986:25). Resistance was encountered almost from the first announcement. The Tennessee State Planning Commission objected to the fact that this region of Tennessee was already overpopulated with reservoirs and that it might be better to preserve one of the few lowland river areas which

offered exceptional cold water fishing potential. In 1964, local citizens held a town meeting to object to the project. In 1965, United States Supreme Court Justice William O. Douglas,

visited the project area in support of the Cherokee Indians, who also opposed the project. The reservoir flooded their sacred capital, Chota, as well as their ancient burial grounds (Chandler 1986:26).

The whole question of economic analysis and who would win the argument of opposition became a political one, because the "decision would be nothing if not political" (Chandler 1984:82), and Chandler argued that economic analysis cannot be the only judge when dealing with the potential disruption of so many lives. Chandler argues that

The decision to flood one home to save another cannot be left to economic science. It cannot be left to the experts. It must be decided in a democratic forum which also has adequate checks and balances to protect minorities and the weak. TVA's charter lacks such protections. Instead it leave such matters to technical experts. The actual economic performance of the TVA flood control system suggests that the drafters of the TVA charter mistakenly abandoned democratic checks. (Chandler 1984:82-83).

In the case of the Tellico Dam, the Tennessee Valley Authority began pressuring landowners to sell in the late 1960's using their right of 'eminent domain' and expropriation. In fact, the Authority bought up much more land than was intended for flooding. The excess land was intended for industrial development and the construction of a recreational lake and town. However, the idea of a new

town went by the wayside in the 1970's (Chandler 1986:26). Two things happened to effect a significant opposition to this project. One was the organization of the Little Tennessee Landowners Association, and the other was the discovery of an endangered species of fish living in the area, the snail darter. The person who discovered the snail darter, was in fact, working on a Tennessee Valley Authority contract to determine the impact of the dam. This circumstance initiated the beginnings of a lawsuit; and a petition had to be filed to have the fish declared an endangered species. A committee was formed to represent Tennessee Endangered Species. In 1976, a lawsuit was filed seeking an injunction on the construction of the dam (Chandler 1986:26). The struggle began using legislation, and a citizen's coalition was formed to offer an alternative to the project.

Originally a committee decided not to grant the dam an exemption regarding the endangered species clause, however, the project was completed when "a rider on the Energy and Water Appropriations Act of 1980 exempted Tellico from all federal laws and mandated its completion" (Chandler 1986:27). This long fought battle left a "bitter legacy"; the popularity of the Tennessee Valley Authority was waning because of increased power rates, and the Tellico served as an example that the Authority was "beyond control" (Chandler 1986:27). The climax of the battle came when the Authority

began to sell off the excess land to a development agency in spite of offers from former landowners to buy back their land. The results of this project, as put forth by Chandler (1986) were; no industrial development; little likelihood of navigational benefits; marginal power benefits; and disputed flood control benefits. But this was not the end of the Tennessee Valley Authority. They initiated another, similar, project with the Columbia Dam on the Duck river in middle Tennessee. The dam was intended to provide a recreational lake and would have no power benefits, no navigational benefits and very few flood control possibilities (Chandler 1986:28). Eight-seven per cent of the land to be flooded was prime farmland. Over 1500 people would be displaced and "schools, churches, stores, and cemeteries [would] be destroyed" (Chandler 1984:167).

Reasons given for continuing with this project were that sixty per cent or more of the benefits were to be derived from recreation. Opposition to this dam have included concerns over water quality, and the "staff of the Tennessee Division of Water Quality control urged the Commissioner of Public Health to withhold permission to build the dam" (Chandler 1986:29). However, this concern was ignored and the permit was issued. Opponents of the dam were primarily landowners, the other citizens generally supported the project. Alternatives were ignored, and only one benefit was discernable; flood control. The project

went ahead. Apparently, the Tennessee Valley Authority have or had some concerns over completing the Columbia dam, given the problems they encountered with the Tellico dam. After some time construction was suspended, and in 1985, the Authority were conducting further feasibility studies (Chandler 1986).

Chandler concludes his discussion of the two projects, by addressing the primary problem with the Tennessee Valley Authority. He saw the main problem being the fact that only three men make the decisions and these men are mandated by the government to be exempt from all federal laws regarding energy and water concerns. The leadership is what should be questioned and challenged, and Chandler says:

Advice can be taken from one who was affected by the massive Land Between the Lakes project, in which TVA created a sort of national recreational areas on a large peninsula isolated by TVA and Army Corps of Engineers reservoirs. It is, for all practical purposes, a 170,000-acre public campground, the creation of which required that 788 families be removed from their home and land. The bitterness of having her land condemned by TVA for the Land Between the Lakes project prompted Corinne Whitehead to travel to Washington to testify at the 1975 oversight hearings. There she made a memorable plea:

I represent approximately 2500 former landowners in the TVA Land Between the Lakes project in Kentucky, as well as other citizens in several counties. We respectfully petition the Congress on the following subjects and objectives: **The people most vitally affected by the fickle and unresponsive policies of TVA must have a voting voice in the selection of the TVA Board members. If the people of the Tennessee Valley and the nation are capable of electing governors, congressmen, senators, and other representatives, then it stands to reason the people have the capacity to elect their choice of a representative**

to the TVA board. TVA wields more power over their lives than any other agency in the United States' government [my emphasis] (Chandler 1984:173).

Clearly, the description of the Tellico and Columbia projects demonstrated the public opposition to these dams. Coalitions, and citizens associations were formed, environmental groups became involved, indigenous groups protested and legal battles were waged. Unfortunately, the Tennessee Valley Authority held the upper hand, first they held the right to 'eminent domain' and second, and possibly most significantly, they were mandated to be 'above federal laws' and this eased the completion of these projects.

Interpretation of Data:

The Tennessee Valley Authority and resistance to their decisions needs to be placed in an historical perspective. When the Authority began, it was during the Great Depression and they served to supply much needed jobs and provided the potential for electricity to formerly remote or poorer areas. Resistance began in the 1960's, and was directed at projects which were deemed to be 'uneconomic' and did not provide any discernable benefits to those to be most greatly affected. The resistance appears to have been directed, not only to the projects themselves, but to changing the operation and membership of the Authority itself.

Expropriation of land may not be admired by an affected population, but it will be generally accepted as a 'fait accompli' if it is perceived that the government is supporting the actions. People affected by the Tellico and Columbia dams took their time about selling their land, but in the end, it was generally accepted that they had to do so. Even the courts were upholding the 'eminent domain' of the Authority. My brief mention of the Cherokee protest is so brief because the reference itself was so. I could find no further mention or discussion of their protests and claims, and could not determine whether the population was resettled in Tennessee or even further from the site than that. Some landowners were given a choice of staying or resettling in other states. Overall, when one surveys the

variables for analysis, there are many similarities of methods chosen, in dedication of purpose, support from other groups, and the decision to take legal action to seek redress as well as a tendency toward a non-violent, yet confrontational protest. Even with the general acceptance of the perceived need of dams for flood control, the populations in Tennessee would not be silent. Like those in Chile and India, protest and opposition will be voiced and will be heard. Significantly, the United States, considered to have built the largest number of dams in the world, through the Bureau of Reclamation, has stopped all dam construction and withdrawn its support in China (Suzuki 1995). This is seen to be primarily due to the fact that there is no public support for these megaprojects; the dam building era is over as far as the American government is concerned (Suzuki 1995).

Chapter Five

Discussion of Case Studies and Queries for Further Study

Restatement of Thesis and Limits of Data

I stated, at the outset of this thesis, that resistance to a similar structural problem (hydroelectric projects) will generate similar strategic responses. Conditions may vary, but I suggested that the forms of resistance would be similar. I also proposed that similarities would increase as the number of resistance movements increased, due to probable contact and linkages between groups resisting through the sharing of information, strategies, and tactics.

I defined resistance as being a reaction to 'imposed' decisions and actions, which may be confrontational or non-confrontational struggles which are employed by individuals, or by a group, in order to achieve their perceived goals. The description and illustrative comparison of the three case studies bear this opinion out.

It was the issue of and the problems found in the planning and implementation of resettlement schemes which first drew me to the subject of resistance. Once it became apparent that there was a frequency in the occurrence of resistance to resettlement toward hydroelectric projects; I became interested in comparing strategies of resistance cross-regionally. Resistance to hydroelectric projects indicates a concerted and growing opposition to 'development' from national or international agencies.

The dichotomy between decision-makers and those on the receiving end of the decision process, is emphasized by the rise of resistance to hydroelectric projects (Chico dam/Philippines; Sardar Sarovar dam/India; James Bay dam/Canada; Pangué and Ralco dams/Chile; and Hidrovia dams/Brazil and Paraguay).

The limits of this exploratory study were largely due to my focus on the resettlement issue. Other factors which may have been included are health or environmental issues. The literature discussed in the body of Chapters Two and Three varied in the nature of the issues raised. Primarily I focused on resettlement and resistance, but found the literature about theories regarding resistance to be narrow and far too confining for the scope of the comparison I wished to make. In particular, James Scott's (1985) theories of 'everyday' forms of resistance are interesting, but did not allow for much variance when attempting to explore a cross-regional sample.

Other theories of resistance, including liberation theology, were also limiting to the study I wished to undertake. Thus, as described in the section on Methodology, I focused on large scale hydroelectric projects. Three cases were chosen, two based on information already gathered during the process of examining problems with resettlement, and a third, as an historical 'test' of the comparative method I chose to employ.

During the extensive literature review and data collection process, comparison seemed an inevitable, natural and useful method to examine strategies of resistance. Sarana stated that there are three basic questions which should be asked for comparative analysis. They are:

1. What should one compare? [In this thesis, I chose to compare strategies of resistance between/among movements].
2. Why should one compare? [Because there already appeared to be some striking similarities and comparison would provide a useful way to come to some generalizations].
3. How does one make comparisons? [I chose to compare "by use of illustration; following...a set of already earmarked categories or a pre-conceived scheme of interpretation" (Sarana 1975:15-17). This method indicates illustration selected according to the researchers' convenience. The method chosen has validity and was selected because of my familiarity with the material to be compared and, indeed, with categories already evident due to that familiarity].

What I chose to do with this thesis was less than an analysis, but rather an exploration or suggestion of an effective method for studying resistance.

Summary of Arguments and Discussion

Scott's theories of 'everyday' forms of resistance (1985, 1986), and Haynes' and Prakash's essays regarding 'everyday' forms of protest (1991) do not seem to allow for much variance in forms of resistance in South East Asia or elsewhere. India's Narmada Bachao Andolan is clearly a collective protest, very confrontational and extremely resilient; with over a decade of protest regarding the

Sardar Sarovar dam. This movement has managed to counter most, if not all, actions by the Indian governments, national and state. Sangvai may be correct in his assertion that the judicial system is failing to provide the necessary and indeed, expected protection and judicial decisions (1995). However, the Narmada Bachao Andolan struggles on, meeting each challenge with a new or proven strategy that they have overwhelming international support which is a credit to the success of the organization and the leadership and commitment of the membership.

In Chile, things were less clear, information was more scant and there was some confusion about the involvement of indigenous groups. However, the 1992 statement, by the Pehuenche community, indicates an initial belief in what the government and construction company were offering. However, the Mapuche did not cease making land claims, and several months later, in a show of support to the resistance movement, the Mapuche-Pehuenche community officially announced their opposition to the dam project. The most recent material, from November 1995, indicates that opposition continues and that those in opposition have taken a daring new step in demanding that the World Bank and International Finance Corporation justify their actions in funding a project which was shown to be not viable (Chatterjee email 7 November 1995). The Chilean Commission of Human Rights, the Institute for Ecological Policy, the

Centre for Alternative Development, the Mapuche-Pehuenche Centre, the National Ecological Action Network and the Committee in Defense of Flora and Fauna, all in Chile, have opposed the Pangué, Ralco and associated dam projects since 1992. Two activists from el Grupo Acción por el Bio-Bio travelled to Washington in November 1995, to inform the International Finance Corporation that "things are not going well at the dam site" (Chatterjee email 11 November 1995). They indicated a problem with the foundation organized for indigenous people and the percentage promised to it from the sale of electricity. The foundation is controlled by four company officials and "of the three indigenous people at the foundation, only one actually represents half of one of the three communities in the area" (Chatterjee email 11 November 1995). The two activists argued that the people of the area should be given a say in the development which is to happen to them.

On November the 17th, 1995 Chilean activists filed a formal complaint against a World Bank affiliate. The complaint cited that the affiliate failed to live up to World Bank policy and guidelines regarding environmental impact assessment. This complaint was given to a newly formed panel, by the World Bank, to examine the grievances by communities affected by World Bank financed projects (Chatterjee email 17 November 1995). This sets a precedent in that the complaint has been levelled against the

International Finance Corporation, the Bank's fastest growing unit. The claim has been filed by "two hundred Chilean citizens, including forty Pehuenche and three members of Chile's national congress" (Switkes email 17 November 1995). This inspection panel has heard only four cases so far, the first involved the Arun III dam in Nepal and its decision, which criticized the Bank's loan, resulted in an August 1995 decision to pull the World Bank funds from the project.

Opposition to other dam projects have also been noted in Chile. In the Valle de Elqui in Southern Chile, several small villages voiced their opposition to the construction of a dam. The regional government attempted to persuade the population that the dam will bring many benefits; among them irrigation. Almost 1000 people will be displaced by this dam. Government official visited the area and were greeted by crowds of people chanting 'No al tranque' (Canihuante email 27 April 1995) ⁴. In Chile, the social forces have come together to reject this project. It has been pointed out to me that, in Chile, to say 'No' is the strongest form of a slogan which can be used (Soto Rubio, personal communication). It indicates that something is not acceptable to the collective social forces which are in opposition to a particular action, in this case, a dam. If the movement says 'no', it is an indication of a testing of the strength of the movement itself. It requires a great

deal of commitment and dedication and if the opposition shows itself unable to continue then the consequences can be very severe politically (Soto Rubio, personal communication). I would suggest that the anti-dam movement is very strong in Chile, in light of the very recent news (November 1995) of the filing of grievances against a unit of the World Bank and the continued attempts at legislative change and the pursuit of land claims by the Mapuche being sought from the Chilean government.

The Tennessee Valley Authority was included as an historical test of the comparative method chosen. It was demonstrated through two project examples, that these projects will be opposed. The Tellico Dam and the Columbia River project adversely affected large numbers of people, living in communities and they collectively and individually challenged the Tennessee Valley Authority. It was not surprising, then, to find that, here too, the judicial system was employed as a tactic against a government sanctioned Board of Authority. The fact that they were unsuccessful does not negate the fact that there was organized and concerted protest to the two projects. Chandler contends that there is evidence that the TVA has "contributed substantially to the economic growth of the

Tennessee Valley region" (1984:7). Chandler further points out that

Economic decisions are also political decisions when they involve condemning one family's land to provide flood control for another, strip-mining one family's land against their will to provide slightly cheaper power to another, or building unnecessary power plants and billing the cost to consumers who had no voice in the decision to build. Such decisions have been made for Tennessee Valley citizens by experts for five decades (Chandler 1984:11-12).

Of some significance is the fact that the Tennessee Valley Authority was mandated with the right to 'eminent domain' and were considered to be 'above federal laws'. This particular aspect led to somewhat different tactics, in that the opposition to the projects eventually resulted in opposition and legislation against the Tennessee Valley Authority.

History of Resistance and Comments from Case Studies

As of 1995, the United States Corps of Engineers (who helped construct the Hoover dam and are often involved in large hydroelectric projects throughout the country) and the Bureau of Reclamation and Development have virtually stopped all construction of large dams. These projects have become increasingly uneconomic to construct and are often met with vehement opposition by affected populations and concerned organizations and groups.

Problems with these megaprojects are not new and may begin with the conflict inherent in the development process itself. That conflict involves a difference in world view

in the relationship between the dominant power structure and those who are 'targeted' for development (Regan 1994). Regan noted that the "society which controls the development process can be characterized by its dependence on industrial production"(1994:5). This industrial society has a world view which views the plant and animal world as resources to be utilized. This is in direct conflict with a non-industrial world view which sees 'mother earth' and the plant and animal world as 'gifts' for the sustenance of its' people. Nature is something to be respected and nourished as it nourishes those who help sustain it. Core values for the industrial society were set by the United States, who being considered the most powerfully industrial society and seen as the 'initiator' of 'developing' the rest of the world; set the standard for development, including the construction of large dams (Regan 1994). Regan demonstrated that this 'economic imperative' is not inherent in the documents coming from non-governmental organizations, grassroots groups or indigenous organizations found in the Southern Hemisphere (the developing world) (1994). There exists a large gap between what the 'targets' of development want and ask for and what the developers are saying and giving them in terms of development.

For example, along the Argentina-Paraguay border (along the Parana river), a dam has just been completed which has a 70 kilometre wall which will cause the submergence of

significant wetlands, grasslands and subtropical rainforest. This project has taken 20 years to complete and Argentina will use it for 40% of its energy and Paraguay will export its energy (Suzuki 1995).

These megadams involve billions of dollars of technology and financing from industrial countries such as Germany, Japan and the United States. These rich nations export technological aid and get caught up in an 'ethical loophole', because they evade/avoid/ignore social and environmental costs and responsibilities (Hildyard and Goldsmith 1986; Drucker 1985; Hansen and Oliver Smith 1982; Beckman 1985; Suzuki 1995).

Once the floodgates are closed on the Parana, it will cause the evacuation of 50,000 people. These affected peoples are a large part of the costs rarely discussed. The Parana will partly submerge two cities, and some very important wildlands (Suzuki 1995).

Bruce Rich of the Environmental Defense Fund, in *The Nature of Things* (1995), states that the World Bank (a major source of finance for the construction of dams) forcibly displaced 2 1/2 million people or were in the process of displacing these people, by Bank financed projects during the lending period of 1986-1993. Rich notes that there were very few situations which could be identified where any of these 2 1/2 million people had been worse off (Suzuki 1995). Clearly, it is a myth that dams are a clean, easy,

cheap form of energy. Cheap for whom? Who is really paying the social, environmental and health costs of these megaprojects? One could suggest that these are reasons why resistance to dam construction is increasing worldwide.

Overall, the three case studies show remarkable similarities in dedication of purpose, support of other groups and international groups and organizations, concerted decision to take legal action to seek redress and the tendency toward a non-violent yet confrontational protest. They would not be silent. Protest and opposition will be voiced and will be heard. When comparing the variables from the three case studies, the similarities became quite apparent, particularly regarding legal actions, land claims and attempts at constitutional change.

Summary of Case Study Discussion

All the methods chosen, demonstrations, protests, gatherings, slogans etc. were non-violent in nature. It is not clear, because none of the samples were of violent protest, whether non-violence is something to be expected in most cases of opposition to hydroelectric projects, or whether the choice to move in a non-violent manner was seen to be the most effective. Certainly it is an effective way to protest, although it requires much dedication of purpose and patience for the wait for any responses from the companies and governments involved. Membership shows clearly that those communities most affected by the project

will protest collectively.

In the case of Narmada Bachao Andolan, this movement shows a gathering of people from diverse economic and social backgrounds against a similar threat to their livelihood. This is also the only movement, selected for examination for this thesis, which has a clearly defined leader. However, Patkar does not appear to lead in the way one would expect. Decisions are made by groups of people, 'leaders' of their communities in discussion of the best and most useful road to take. However, their methods, goals, negative effects, and even some of the countermeasures taken by the government are comparable and similar to those experienced by the resistance movements described in the other two case studies. Method of resistance, negative effects of the dam, and membership of the resistance were chosen for a more detailed discussion in this thesis from a larger selection of variables generated by the data itself. Variables came from the data and these three were chosen as having the most significance and the most relevant material available for examination. Of considerable interest, and some surprise to me, was the fact that it appears more and more groups are going to their country's constitution in order to effect social change. The number of occasions in which legal actions were taken was much larger than anticipated. I expected more in the way of organized demonstrations and protests, and possibly legal land claims from indigenous

populations.

I would also expect population and size of community as well as social organization as factors which would also contribute to the move to resist these large projects. Some significant variables also include: countermeasures taken by agencies and governments; access to technology and contact with other groups resisting similar projects. None of these factors have been adequately addressed in previous examinations of resistance and the whole concept of comparison has virtually been ignored. It is for the above facts that it is apparent there is a need for more detailed and further study into the move to resist and to effect a comparison of resistance movements in order to gain a better understanding of conceptualizations of resistance.

Implications for Further Research

Something which should be considered when researching resistance to hydroelectric projects is to include hydroelectric projects which did not result in resistance. This might have produced some very interesting comparisons. However, due primarily to time constraints, I was unable to include a case or cases in this thesis. But I do recognize the potential for research in this area and the resultant comparison between strategies taken and choices made by communities. Certainly, I was aware of the issue, but made my choice to look at resistance separately at this time. My illustrative comparative examination of these three case

studies is merely a beginning into research into larger issues and a greater number of movements and variables. Something more comprehensive would be best left for further study and over a longer period of time. One thing which would enhance such a study would be a concentrated effort to collect comprehensive data via the electronic mail. Contact through academics, journalists, and interested groups would greatly enhance any further examination of conceptualizations of resistance movements. Hydroelectric projects continue to be constructed worldwide. Therefore, one may expect resistance to these projects to continue on a global scale.

In World Watch of September/October, Gary Gardner and Jim Perry (1995) indicated that "Big-Dam Construction Is On The Rise" (Pp. 36-37). They indicated an increase of 9 per cent in the number of dams under construction. They also note that:

The future of dams is unclear. Proponents note that only a fraction of the technically usable hydropower potential in developing countries has been harnessed...It remains to be seen whether current and future big dams can meet the increasingly stringent environmental and social standards expected of them, and whether development needs can be met in other ways (Gardner and Perry 1995:37).

I am interested in to continuing to use comparative analysis and to pursue my interest in resistance movements, as I have only just opened the door with this study.

Illustrative comparison is but one method of comparison

which has been underemployed in the study of resistance. Even those discussing 'everyday' forms of resistance offered little in the way of comparison between or among the resistance being studied. The use of any comparative method has largely been ignored in the examination of resistance movements.

As I have illustrated in the case studies, strategies are similar when people resist a similar structural problem. I believe that, as linkages and contact between resistance movements is established, those similarities will grow and increase the need for further comparative study to enhance the understanding of conceptualizations of resistance. Dam building has ceased in the United States, but developing countries continue to see them as a viable form of development. As resistance continues and grows, with new tactics being taken against financial agencies, as in Chile, then I believe we will see some changes in policy and implementation. The resistance movement in Chile is setting a precedent that the other groups are sure to follow. Governments, the World Bank, and the International Finance Corporation will not be able to ignore the increasing number of resistance movements to hydroelectric projects. Realistically, this will take time to effect change. However, as shown by two of the described resistance movements, as long as the struggle continues and populations persist with resistance, there is bound to be a gradual

change in the way development is undertaken.

It is my belief that resistance movements will gain more influence as they increase their contact and linkages with other resistance groups. These case studies clearly illustrated the need for international support and how that factor can significantly alter negotiations with governments and development agencies.

ENDNOTES

1. "Subaks" are irrigation regions (made up of groups of villages) dependent on this water system. Heads of communities and elected heads of 'subaks' are responsible for decision regarding planting etc. This is done in consultation with their associated temple priest.

Translation of electronic mail received in Spanish completed by Cheryl Tingley.* CHIP news [Political, Environmental, Economic, and Human Rights News Chile Information Project "CHIP"] received on email by Dr. Anthony O'Malley who graciously provided me with the documentation. Translation assisted by Profesora Bibiana Burton of Dalhousie University.

2.

Titulo: CHILE: Polemica por Nuevo proyecto hidroelectrico en rio Biobio

Santiago, 15 dic (IPS) Grupos ecologistas iniciaron una nueva polemica con el gobierno de Chile al denunciar la inminente aprobacion de un nuevo proyecto hidroelectrico en el rio Biobio, el mas importante del pais.

Los ambientalistas, reunidos en la Asamblea para la Proteccion del Alto Biobio, irrumpieron el miercoles en un seminario convocado por la Comision Nacional de Energia (CNE) para protestar contra el proyecto de la central Ralco.

Los mismos grupos realizaron durante el gobierno del presidente Patricio Aylwin (1990-94) una infructuosa campana para oponerse a la construccion de la central hidroelectrica Pangue, en el mismo rio.

La construccion de la nueva central de 570 megawatts implicare, segun la denuncia, la inundacion de 3.400 hectareas y la expulsion, al igual que en Pangue, de 670 personas de comunidades indigenas pehuenches y campesinos....

Gonzalez indico que los grupos integrantes de la asamblea de proteccion del Biobio se retiraron tras interrumpir el seminario, sin oir las replicas a su denuncia, porque "en el fondo, no estan dispuestos a escuchare las razones nuestras ni a debatir seriamente".....

La Red de Accion por el Biobio, uno de los grupos de la asamblea, realizo una campana de cabildos y denuncias internacionales, con el apoyo de organizaciones ambientalistas, pero no logro bloquear los creditos a Endesa.

"Exigimos que se suspenda la construccion de mas centrales en el Biobio mientras no se entregue informacion publica sobre estos proyectos y se aseguren los derechos de los pehuenches a sus tierras e identidad cultural", senalo la asamblea en la declaracion leida ante el seminario. (anonymous email 18 December 1994).

3.

Titulo: CHILE: Indigenas y ecologistas se oponen a central hidroelectrica por Luis Alfonso Zenteno

Indigenas y grupos ecologistas de Chile llevan a cabo una creciente oposicion a los proyectos para construir una serie de centrales hidroelectricas en el curso superior del Biobio, el rio mas importante del pais.....

Por milenios, ha surcado libre sus 380 kilometros de extension, constituyendose en parte de la vida del pueblo mapuche y sirviendo de "muro de contension", primero de los afanes expansionistas de los incas, y posteriormente de los intentos espanoles.

Esta parte de la historia del pueblo mapuche fue oficialmente interrumpida cuando el 5 de enero de 1990 el gobierno de Chile, a traves de la Direccion General de Aguas del Ministerio de Obras Publicas, autorizo "en forma inconsulta", la construccion de la Central Hidroelectrica "Pangue", en territorio pehuenche.

Los mapuches pehuenches constituyen una de las etnias mas olvidadas de Chile. Estan repartidos en ocho comunidades en el Alto Biobio, territorio que han habitado por siglos....

La central Pangue pertenece a la Empresa Nacional De Energia S.S. (Endesa), la mas importante generadora y propietaria del 50 por ciento de los derechos de agua del pais, "cuyos proyectos le generan un lucro basado en el uso de bienes y recursos que pertenecen a todos los chilenos", senalo....

Pero Pangue es s lo parte de un megaproyecto que contempla seis centrales, entre las cuales estan Ralco, Ranquil, Aguas Blancas, Huequecura y Quitraman.

El Centro de Ciencias Ambientales de la Universidad de Concepcion advirtio de los efectos que la central tendra sobre el Biobio. "Puede tener consecuencias ecologicas graves", afirmo...

Junto con el dano ecologico, la puesta en funcionamiento de la central Pangue significara la "inundacion de tierras de las comunidades, pehuenches, traslados forzados de la poblacion afectada, aumento subito y masivo de la poblacion no-indigena y desmatelamiento acelerado de la cultura pehuenche", senalo el centro.

Esos impactos ambientales y sociales se multiplicaran en forma "exponencial" con la construccion de una segunda central, considerada la mas importante del proyecto por su capacidad y envergadura; la Talco, "siete veces mas grande que Pangue", agrego.

La represa Ralco contempla un volumen de 1.200 millones de metros cubicos, con una fluctuacion mensual de 20 metros, lo que significaria la denudacion irreversible y perpetua de unas 1.400 hectareas en las riveras del embalse...

El Grupo de Accion por el Biobio (GABB) denunció que "con argumentos engañosos, se hacen cómplices de este 'ecocidio' la Corporación Financiera Internacional del Banco Mundial; las agencias de desarrollo de Suecia y de Noruega".

En una conferencia de prensa, cuatro "werkenes" (consejeros) pehuenches amenazaron con tomar medidas de fuerza en caso de que Endesa siga con sus trabajos de prospeccion y dondaje...

Manuel Baquedano, del Instituto de Ecología Política, indicó que "el gobierno debería tomar en serio este asunto, ya que los pehuenches estan realmente decididos a defender sus territorios, existe una generacion de jovenes pehuenches que se esta involucrando. Es la primera que se educa afuera", expreso.

"El gobierno tiene el deber de salvar esa tierra indigena y no vamos a descansar hasta que el area se proteja", renarci Cristian Opazo, del GABB.

"A pesar de que Chile cuenta con una ley de medio ambiente y una ley indigena, Endesa esta haciendo caso omiso de su existencia", enfatizo. (Zenteno email 6 February 1995).

4.

Titulo: CHILE: Pequeños pueblos se oponen a construccion de embalse por Gabriel Canihuante

Los habitantes de cinco pequeños poblados del Valle de Elqui en el centro-norte de Chile, se oponen a la construccion de un embalse que provocara la inundacion de las tierras en que viven cerca de mil personas.

El Embalse del Puclaro, como se conoce a este proyecto, es "tarea prioritaria" del gobierno regional, que busca por todos los medios convencer a la población local de los beneficios que traería a la zona una obra de riego como esa, cuyo se calcula en 75 millones de dolares.

"No al tranque" (embalse). Esa corta frase ha empezado a repetirse en los ultimos meses en la zona del Valle de Elqui, a unos 500 kilometros al norte de Santiago. Recientemente, el ministro de Obras Publicas, Ricardo Lagos, de visita en la region, deio leerla y oirla repetidas veces.

Los habitantes de Gualliguaica, el mas grande do los cinco poblados afectados por la furtura represa, en la comuna de Vicuna, salieron a recibir al ministro con pancartas y gritos. Incluso los ninos que debian estar en clases a esa hora fueron a la reunion....

Canihuante email 27 April 1995

5.

Titulo: CHILE: Indigenas recurren a la justicia contra hidroelectrica por Angelica Guzman 22 enero 1996.

La accion legal sera emprendida por la comunidad pehuenche de las localidades de Quepuca-Ralco y Ralco-Lepoy, 520 kilometros al sur de Santiago, en lo que representa el segundo conflicto etnico-ambiental que enfrenta la Empresa de Electricidad S.A. (Endesa), uno de los mayores consorcios del pais.....

Mauricio Huenchulaf, director de la Corporacion Nacional de Desarrollo Indigena (Conadi), dijop que el recurso se apoya en la Ley de Proteccion, Fomento y Desarrollo Indigena, expedida bajo el gobierno de transicion democratica del presidente Patricio Aylwin (1990-1994).....

Los conflictos en torno a Pangué y Ralco se generan por la contraposición entre las normas que promueven los grandes proyectos energeticos, expedidas en 1982 bajo la dictadura del general Augusto Pinochet (1973-1990), y la ley de Proteccion al Pueblo Indigena.

La normativa de 1982 autoriza la expropiacion de terrenos para la construccion de centrales hidroelectricas y obras publicas en general, previo pago de indemnizacion a sus propietarios.

Los mas de 400 pehuenches que viven en el sector de Ralco sienten amenazados sus derechos de propiedad por el proyecto de construccion de la central, que comenzo a operar sin haber sido ratificado el permiso de inicio de actividades pr la Contraloria General de la Republica.....

La mormativa obliga expresamente a los servicios de administracion del Estado a considerar la opinion de los grupos etnicos sobre estas materias, senalo.

El vocero de Conadi en Santiago, Juan Queupuan, senalo que "el proyecto afecta directamente a las culturas indigenas, provocando su exterminio en el mediano plazo", y recordo que este pequeno asentamiento pehuenche es el utimo de Chile.

Queupuan afirmo que los derechos de la comunidad pehuenche deben prevalecer por sobre los intereses empresariales de la nueva central hidroelectrica....

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