

**RETHINKING RESETTLEMENT:
EMPLOYMENT, NEGOTIATION, AND LAND IN SINGRAULI, INDIA**

by

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ABSTRACT

This thesis questions current resettlement approaches, and suggests a different way of thinking about the issues of i) participation, ii) land, and iii) employment in resettlement projects. This study of resettlement programs for people displaced by power and coal projects in Singrauli, India, found that:

i) Although there were no formal mechanisms to incorporate participation, displaced people or “oustees” did participate. Their resistance and top-down support for their cause forced the coal and power firms to negotiate with them. These negotiations enabled oustees to alter centralized decisions and ensured participation. Facilitating negotiations between project agencies and oustees, then, may serve as an approach that is both an easier first step and more effective than “participation” as it is conventionally understood.

ii) Despite scarcity of land in this urbanizing area some oustees managed to purchase small parcels of land with their own resources and compensation money. These parcels, including non-agricultural land, were a critical component of oustee attempts to diversify their income portfolio to include urban rents, urban jobs, and income from agriculture and kitchen gardens. While urban resettlement literature focuses only on providing well-located urban plots to oustees, this case shows that access to additional land is possible and may be crucial for economic rehabilitation of oustees in urban and urbanizing areas.

iii) The government’s energy policies, and “efficiency” concerns of donor agencies run counter to their resettlement objectives. Narrowly defined efficiency targets for mines and power plants have undermined job-linkage policies aimed at increasing employment opportunities for oustees. This suggests that even getting resettlement policies right may not help if sectoral policies and regulations pull in opposite directions.

The Singrauli case suggests that in dichotomizing issues -- urban vs. rural, jobs vs. land, top-down vs. bottom-up, and jobs vs. efficiency -- policy makers may be overlooking the spectrum of options between these apparent polarities that may achieve successful resettlement and rehabilitation.

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LIST OF ACRONYMS

MP	--	Madhya Pradesh
UP	--	Uttar Pradesh
SADA	--	Special Area Development Authority
NCL	--	Northern Coalfields Limited (The coal company)
NTPC	--	National Thermal Power Corporation (The power company)
SSTPP	--	Singrauli Super Thermal Power Station (owned by NTPC)
VSTPP	--	Vindhyachal Super Thermal Power Project (owned by NTPC)
RhSTPP	--	Rihand Super Thermal Power Project (owned by NTPC)
UKMP	--	Udvasit Kisan Mazdoor Parishad (Union of Displaced Farmers and Workers)
EdF	--	Electricité de France
WB	--	The World Bank

I. INTRODUCTION

The literature on resettlement has sought to draw attention to the trauma and disruption associated with displacement -- loss of livelihood, destruction of "home," dissolution of social and economic networks, increased stress and higher mortality rates (see Scudder and Colson 1982, Partridge 1991). Social scientists have argued that resettlement associated with development projects is a phenomenon that is largely neglected by project agencies. Resettlement projects that have been undertaken have often failed to restore the social and economic well-being of the displaced population (Cernea 1988).

In response to criticism in the literature and to the history of resettlement failures, resettlement experts now emphasize the importance of economic rehabilitation, that is, ensuring an alternate means of livelihood for the people displaced (Cernea 1988, WB 1990, Davidson, Peltenburg, and Zaaijer 1991).¹ They suggest that for rural resettlement projects, land-based strategies that hinge on the provision of alternate agricultural land in exchange for the land expropriated, are the best means for economic rehabilitation. For urban resettlement projects, experts emphasize non land-based strategies -- creating alternate jobs for the displaced people or "oustees," and/or improving access to existing employment opportunities. Furthermore, experts stress that to be successful, resettlement programs must be participatory rather than top-down (Cernea 1988, Davidson et al 1991). Recent experience with resettlement programs, however, is not encouraging -- the record for creating alternate employment has been dismal (Fernandez 1992); replacement land is difficult to provide and land transfers rarely occur (WB 1988); and oustee participation in decision-making and implementation continues to be limited (Davidson et al 1991).

The Singrauli case in India suggests that a different way of looking at these issues may be useful. The case brings into question the tendency to dichotomize resettlement

¹ WB refers to World Bank.

strategies into urban vs. rural, jobs vs. land, and bottom-up vs. top-down. In Singrauli, oustees used both land-based and non land-based strategies to re-establish themselves economically. They purchased land even when they had urban jobs and urban house plots, and used it to diversify their income portfolio to include wages, rents, and incomes from agriculture and kitchen gardens. Furthermore, rather than only bottom-up (oustees) efforts or only top-down (central government) pressures affecting change, it was simultaneous top-down and bottom-up pressures that forced the firms who expropriated their land to improve resettlement performance. Although there were no formal mechanisms for oustee participation, oustees in Singrauli found ways to participate. They used resistance as a stepping stone to negotiation with expropriating firms, and negotiation ensured their involvement in the decision-making process. Finally, resettlement policies aimed at providing employment opportunities for oustees -- by reserving unskilled jobs in expropriating firms for them -- worked only when the firms did not view the issue as an efficiency vs. jobs trade-off, that is, when the firms did not consider creating jobs for oustees and achieving efficiency and cost targets as contradictory goals.

Current approaches to resettlement

According to resettlement experts, the major reason why resettlement projects have tended to fail is that they have focused only on physical resettlement -- providing alternate housing and services for oustees -- while the critical issue of livelihood for the displaced has largely been ignored. A second reason for failure is that these projects have not included oustees in decision making, that is, the process has not been participatory. In general, because resettlement projects have been poorly planned, under-financed, and top-down and have, hence, remained largely ineffective (Cernea 1988, Partridge 1991, Davidson et al 1991).

Thus, experts emphasize that resettlement projects should offer development or resettlement packages that enable oustees to restore and, if possible, to improve their

standard of living (WB 1990).² They suggest two types of strategies for economically and socially re-establishing the displaced: land-based and non land-based strategies (Cernea 1988). Experts tend to associate land-based strategies with rural resettlement, and non land-based strategies with urban and peri-urban resettlement projects. Land-based strategies focus on providing replacement land to oustees and on re-establishing agricultural incomes; they include activities such as land reclamation, irrigation schemes, and agricultural intensification. Although there is general agreement that reconstruction of the productive potential of displaced rural populations depends on availability of land, project evaluations reveal that very little replacement land is actually provided by project agencies (WB 1988).

Non land-based strategies focus on providing economic opportunities in service and industrial sectors and self-employment. Resettlement experts note that non land-based strategies may be imperative when land is extremely scarce. Opportunities need to be created for the displaced to re-establish themselves in the local or regional economy; this may require job creation through new investments because vocational training alone does not ensure employment and restoration of income (Cernea 1988). The experience in providing alternate employment has not been encouraging either, and there are few cases to suggest how this may be done.³

In urban relocation projects, intensive land use and the high price of urban land appear to preclude the possibility of making alternate land available. In these projects the goal shifts from providing land to providing housing, and the focus is on maintaining access to existing jobs and economic opportunities. Urban relocation discussions tend to center on “habitat versus employment access trade-offs,” and on how to make well-located

² According to the World Bank’s policy on resettlement, this is the objective that all resettlement programs need to achieve. See World Bank Operational Directive on “Involuntary Resettlement” (1990).

³ See for instance, papers presented at the Urban Relocation: Policy and Practice, Expert Meeting, held at Rotterdam in February 1992. Several papers, including that of Fernandez (1992) cited below, emphasized the issue of alternative employment but noted that few cases have dealt with the issue successfully.

and, hence, expensive urban land available for physical resettlement (Davidson et al 1991, Fernandez 1992, Hundsalz 1992).⁴

Finally, experts argue that to be successful, resettlement projects must be participatory. Participation is important because it discourages dependency on project agencies and allows a gradual transfer of responsibility for resettlement operations to the settlers themselves (WB 1990). Others note that the full potential of all participating groups can be mobilized only if oustees participate in all stages of project design, implementation, and monitoring; project and government agencies have neither the manpower nor experience to do the whole job (Hundsalz 1992). Advocates of this position argue that if oustees play a major part in the decision-making process and are assisted by NGOs, oustees can lessen the burden for the government while supporting their own interests. Another argument is that participation is a positive approach to dealing with initial resistance and hostility from oustees (Cernea 1988). Project agencies should establish good communications by holding consultations with concerned groups and encourage their participation in finding solutions; consultations improve an understanding of their needs, prevent costly mistakes, and help reduce reluctance to move (Cernea 1988).

The Singrauli experience

The Singrauli case provides us an opportunity to reassess a resettlement program that has been perceived as a failure. The Singrauli region, described in more detail later, is representative of areas where unusually rich resource endowments have inspired rapid development. Due to its rich coal reserves and the abundance of water, the Singrauli region has a comparative advantage in power generation. The Government of India has, hence,

⁴ Francisco Fernandez's paper (1992), presented at the Urban Relocation: Policy and Practice, Expert Meeting, held at Rotterdam in February 1992, aptly captures current urban relocation wisdom:

"The primary consideration in the selection of relocation sites must be proximity to existing employment. the urban poor would prefer to buy expensive land in the inner cities rather than inexpensive land in the peripheries. Infrastructure and services are secondary. Experience in providing alternative employment has been dismal."

developed several coal mines and power plants in the area. These state enterprises in the coal and power sector have led Singrauli's industrialization. But they have also caused large scale displacement of people, a majority of whom were farmers. Although the coal and power firms have expropriated large tracts of agricultural land they have not resettled the displaced farmers on agricultural land. Because the area is urbanizing, the coal and power firms argue, there is little farm land available for resettling the displaced. The firms have reserved unskilled jobs for oustees but these jobs have not been sufficient to employ all oustees. Further, while industrial development has undermined agriculture, the capital intensive power and coal industries do not appear to have created enough employment opportunities in the local economy (EdF 1991). Given that there are few jobs and little agricultural land, the task of resettlement and of restoring the economic base of the displaced population in Singrauli is particularly challenging.

Previous evaluations by World Bank (1989) and Electricité de France (1991) indicate that, based on the criteria discussed earlier, Singrauli's resettlement programs have been a failure. First, the resettlement process has not been participatory -- the oustees have no role in the decision-making process, and the coal and power firms that displaced them tend not to consult oustees even to assess priorities. Second, instead of resettling the displaced on agricultural land, the expropriating firms have only provided the oustees with 60'x40' house plots in urban resettlement colonies. Unlike agricultural parcels, the 60'x40' house plots do not re-establish agricultural incomes. Third, although initially the public sector firms were to provide jobs-in-exchange-for-land-expropriated,⁵ the firms have not been able to hire all oustees. The firms argue that they can not offer jobs to all oustees since their capital-intensive and high-technology operations require skills and qualifications that oustees lack. In other words, the firms have not provided adequate alternate income opportunities for the displaced.

⁵ The jobs-in-exchange-of-land rule was revoked by the central government in 1986 (interview with Chief Revenue Officer, NCL, 1/1992).

Main findings of this study

While this study does not disprove that Singrauli's resettlement program has been a failure, it does indicate, however, that some of the outcomes have been positive. This study focuses on a closer analysis of outcomes which have been neglected in previous evaluations and the lessons that they offer for improving resettlement performance.

In contrast to criticisms that Singrauli's resettlement programs are a monolithic failure this study shows that: i) although there were no formal mechanisms for participation, the oustees have managed to affect the decision-making process; ii) despite the apparent scarcity of land in the area some oustees have, nevertheless, been able to purchase small parcels of land with their own resources and compensation money, and have used these in combination with the 60'x40' urban house plots to increase their economic options; and iii) under certain conditions the expropriating firms have been able to provide jobs to oustees. The high technology, capital intensive coal and power industries did create direct and indirect employment opportunities, but these have been undermined by policies working in the opposite direction -- it is the government's energy-sector policies, in combination with "efficiency" concerns of donor agencies, that have reduced employment opportunities for oustees in Singrauli. This thesis is structured around these three findings:

Chapter Two focuses on the dynamics of oustees' resistance to displacement and the subsequent unforeseen negotiations between oustees and expropriating firms. It examines factors and institutional mechanisms that have facilitated these negotiations. It will show that oustees have been able to negotiate increasingly better deals for themselves through this process of bargaining. In contrast to the notion that beneficiary participation cannot occur without special well-crafted procedures, oustees in Singrauli participated even though there were no formal mechanisms in place. The unplanned negotiations between the oustees and expropriating firms allowed oustees to influence decision making and to affect outcomes. Negotiation served as a mechanism to ensure participation.

Chapter Three will examine how, contrary to expectations, oustees managed to purchase land in this urbanizing area. It will show, in contrast to the received wisdom in the land literature, that oustees can gain access to land even in urbanizing areas. Furthermore, while the literature indicates that land is less important than jobs for urban resettlement, the Singrauli case shows that access to land may indeed be crucial for successful economic rehabilitation of oustees in urban and urbanizing areas.

Chapter Four focuses on the issue of employment opportunities in the area. It shows that the policies of the coal mines and power plants have had a much more powerful impact on the amount and nature of jobs than any job-linkage policies, aimed at increasing employment opportunities for oustees, possibly could. It indicates that while the current coal and power policies may help increase efficiency of coal transportation, for example, they may be undermining local economic development goals by reducing both job and business opportunities in Singrauli.

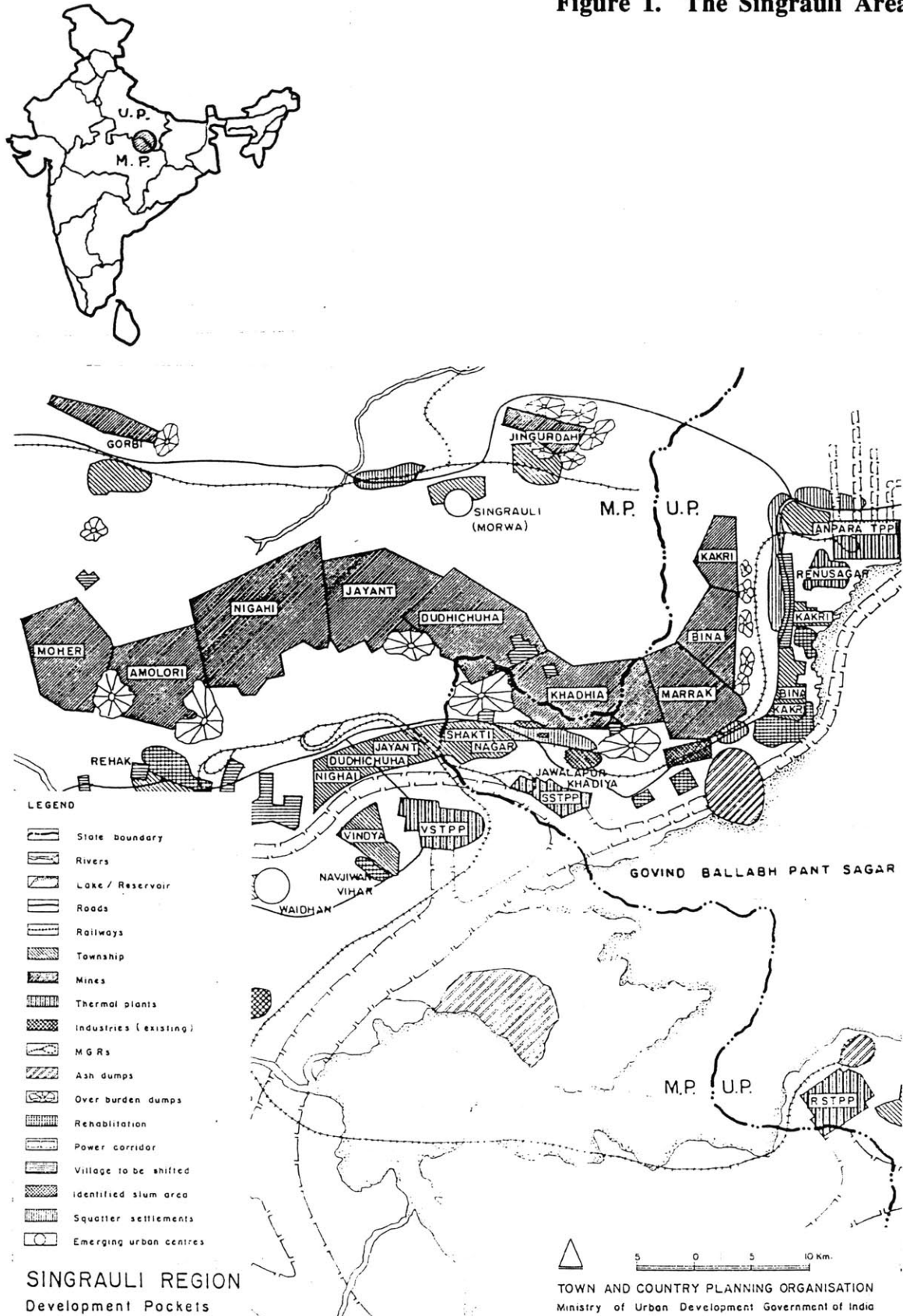
Chapter Five will summarize the key arguments. It will analyze the implications for institutional design, and discuss the role that the state can play in improving resettlement performance. Finally, it will delineate questions for further research.

In the remainder of this chapter I will delineate Singrauli's history and introduce the major institutional actors in the Singrauli case. Finally, I will discuss the methodology of this study.

History of Singrauli's development

The Singrauli region straddles the border of the states of Madhya Pradesh (MP) and Uttar Pradesh (UP). Until the 1950s, the region was essentially a less developed rural area, characterized by subsistence, usually extensive, agriculture. During the 1950s the government constructed two dams and two hydro power stations to attract industry to Singrauli. Although a few private industries -- an aluminum, a chemical, and a cement plant -- located in the area, it was only in the mid-1970s that the pace of industrialization

Figure 1. The Singrauli Area



SINGRAULI REGION
Development Pockets

5 0 5 10 Km.
TOWN AND COUNTRY PLANNING ORGANISATION
Ministry of Urban Development, Government of India

accelerated. In Singrauli, the government discovered the largest coal deposits in the country, covering a total potential resource area of about 50,000 sq. kms. With the discovery of these coal reserves the Indian Government decided to expand electric power generation based on coal and to transmit power for national needs. It designated 2,650 sq. kms of the 50,000 sq. km. coal belt as an active development zone. The government encouraged large public and private thermal power generation stations to locate here to capitalize on this ideal location that offered proximity to coal and an abundance of water. The first thermal power plant commenced construction in late 1970s, and currently, there are five power plants on the shores of the Rihand Reservoir. The Singrauli coal field has 12 mines, nine of which are currently under operation, with the rest in different stages of preparation. Since 1983, the World Bank has made loans totaling US \$ 850 million as partial funding for four power and coal projects in the area.

The coal mines and power plants are concentrated in an “industrial belt” surrounding the Rihand Reservoir. This industrial area covers about 3,131 sq. km., roughly the size of the state of Rhode Island, which is referred to as the Singrauli area. To the north of the reservoir is the Singrauli plateau which includes the coalfields; to the west is the Mayar river valley which includes two of NTPC’s three power plants; to the south is the agricultural plain of Waidhan; and the area further south is hilly terrain (See Figure 1). The core has grown rapidly; population has increased 60% between 1981 and 1990, from 276,000 to 442,000, as compared to a 42% increase between 1971 and 1981 (EdF 1991). While in 1981 subsistence agriculture employed 78% of the active population in this industrial area, a 1991 study indicates that the proportion of those employed in agriculture has declined to about 55% while the proportion of people employed by industry has increased (EdF 1991). Although agriculture remains subsistence in nature, intensive farming of vegetables has increased.

These developments are rapidly transforming this less-developed agricultural area into an industrialized, urbanized economy, and have made Singrauli the center of energy

production in northern India. At the same time these changes have resulted in the forced relocation of about 100,000 to 200,000 rural people.⁶ Some of these people have been displaced more than once -- first due to the construction of the Rihand reservoir in 1961, and then again, due to construction of giant thermal power plants, and the expansion of mining activity. This study focuses on the displacements caused by coal and power projects, which began in the late 1970s, and includes cases of people who have been subject to multiple displacement.

The Institutional Actors

The institutions that are major players in the Singrauli case are introduced below:

i) The expropriating firms

Although several agencies and industries, both private and public, have caused displacement of people in the area, this study focuses on public-sector coal and power companies and the resettlement affected by them. The power and coal company, often referred to as the “expropriating firms” in this study, are central government parastatals. These companies are also the primary employers in the region.

The power company -- the National Thermal Power Corporation (NTPC) -- owns three thermal power plants in Singrauli, and an additional five plants in other parts of the country. Of the plants outside Singrauli, three are in operation and two will be commissioned shortly. In 1990-91 power plants owned or managed by NTPC accounted for 19.3% of the total electric energy produced in India. The three NTPC-owned power plants in Singrauli -- the Singrauli plant (SSTPS) in UP, the Vindhyachal plant (VSTPP) in MP, and Rihand (RhSTPP) in UP (constructed in that order) -- currently have a total

⁶ Estimates on number of people displaced vary widely. More dependable, the Electricité de France study (Draft 1991), commissioned by NTPC, estimates the number to be about 100,000. A World Bank Back-to-Office memorandum (6/1989) also estimates a similar figure; it also indicates that approximately 23,000 people were displaced by the World Bank-financed Singrauli Super Thermal Power Plant and the Dudhichua Coal Project.

capacity of 4,260 mega watt.⁷ The displacements of concern in this study started in 1978 when NTPC's Singrauli power plant commenced construction. Each of the power plants has its own management and they all report separately to the head office in Delhi.⁸

The coal company -- Northern Coalfields Limited (NCL) -- is a subsidiary of Coal India Limited, a Government of India Enterprise. NCL is among the few profit-generating subsidiaries of Coal India Limited; the other subsidiaries include the Central, Southern, Eastern, Western, and South Eastern Coalfields. NCL was formed in 1985 to manage the Singrauli coalfields that were initially included in the Central Coalfields Limited. NCL now manages the 12 mines in the Singrauli coalfields -- nine are operating mines and three are under different stages of preparation. Coal reserves in the nine mining blocks amount to 10,850 million tons, and the company's sanctioned capacity is 39.2 million tons per year; for 1991-92 the company is targeting a production mark of 31.6 million tons.⁹ All of NCL's mining projects consist of highly mechanized, open-pit or open-cast mines. Each of the mines has its own management and they report to the head office located in the Singrauli, about 20 km. from the study area.

ii) The Special Area Development Authority of Madhya Pradesh

Both MP and UP have separate Special Area Development Authorities (SADA). I will refer only to the MP SADA in this study. Also known as SADA-Singrauli, this agency currently manages the power company's resettlement in addition to its mandated responsibilities of developing infrastructure and housing for the whole district.¹⁰ Given these responsibilities, the task of developing the resettlement colony and of handling 2,300 families displaced by NTPC is an additional burden, and consumes increasing amounts of the agency's time and personnel. Further, with the increasing politicization of the

⁷ National Thermal Power Corporation (1991).

⁸ There are two other power plants in Singrauli. The Anpara power plant belongs to the Uttar Pradesh State Electricity Board, and the Renusagar power plant is a privately-owned captive plant that supplies power to the Hindalco aluminum plant owned by the same private firm.

⁹ Northern Coal Limited (1992).

¹⁰ SADA's district covers an area of 180,000 hectares, and includes Waidhan urban area and 133 villages.

dislocation issue and the high visibility of this urban resettlement colony, the agency is under tremendous pressure to perform -- to speed up disbursement of compensation, to develop physical and social infrastructure, and to allocate plots more rapidly. SADA officials note that there are times when as much as 50% of their staff is deployed for NTPC's resettlement work. Some officials complain that they have nothing to gain from this and that NTPC has, smartly enough, transferred its "headaches" to SADA. That is, due to this responsibility, not only is SADA neglecting its constituents in the 133 villages and other urban areas that fall within its purview, it has little vested interest in investing effort into the task. And SADA is constantly berated by oustees, NGOs, and the power company alike, for its allegedly poor implementation of the power company's resettlement.

To understand SADA's role in the resettlement process, the following factors need to be considered. The Additional District Collector of Singrauli also holds the ex-officio position of the Chief Executive Officer of SADA. This means that it is supported by the executive, judicial, and police power of the state -- although SADA is only a local development agency it is, in effect, a powerful state agency. SADA's major sources of funds are property tax and allocations by the state government. SADA is currently facing a severe resource crunch. First, the two major tax payers, the coal and power company, have filed court cases to protest the taxes imposed on them. Until a court decision is reached the companies have a right to withhold the payment of their taxes. Second, due to the financial difficulties that the state and central governments are facing, the funds allocated to SADA have also declined. Since the 1991 election, with the Bhartiya Janata Party (BJP) coming into power in MP state, resource allocations from the state government have declined further. Because BJP did not win the Singrauli district seat and because it is an opposition leader's home district,¹¹ SADA-Singrauli is now given no importance in

¹¹ Singrauli is Congress-I leader Arjun Singh's home district. Congress-I won the 1991 national election and Arjun Singh, the ex-Chief Minister of MP, is currently the Human Resources Minister -- a cabinet position in New Delhi.

state level allocations and priorities. As a result of these financial constraints SADA's development work has been adversely affected.

iii) Non-governmental organizations (NGOs)

There are three NGOs in the area that are of significance to this study. The oldest NGO -- the Banwasi Seva Ashram -- started work in the 1950s and works primarily with tribals. It is located in Gobindpur, about 100 km from the study area, and is primarily funded by foreign donors. The Lokhit Samiti and the Udvasit Kisan Mazdoor Parishad (UKMP) are based near Waidhan, in the study area. The latter NGOs appear to have few sustained funding sources and often have to rely on contributions from local people. The Lokhit Samiti started in 1983, primarily to work on the resettlement issue. The UKMP was established shortly after, with many of the younger local members of the Lokhit Samiti as its office-holders. Although they played a key role mobilizing the displaced, these NGOs, especially Lokhit Samiti and UKMP, are now much less involved in the resettlements in the area. Their role in resettlement is discussed in Chapter Two.

iv) The Central Government

The central government initiated the development of power plants and coal mines in Singrauli in the mid-1970s. The government has obtained loans for these projects from various sources -- World Bank, Overseas Development Bank of Britain, and foreign governments, for example, of Japan, Germany and the Soviet Union. Central government ministries that are currently borrowing from international agencies for projects in Singrauli include the Ministry of Energy, the Ministry of Environment and Forests, and the Ministry of Urban Development; these ministries are important actors in Singrauli.

v) The World Bank

Since 1983, the World Bank made four loans totaling US \$ 850 million -- three loans to the power company, two for the Singrauli power plant and one for a transmission project, and one to the coal company for the Dudhichua coal mine. Another US \$ 300 million worth of loans are currently being negotiated for the Indian power sector, and the

World Bank is also proposing a Singrauli Planning Project. Because the Bank was concerned about environmental problems in Singrauli, the power company commissioned consultants EdF to conduct a detailed environmental assessment of Singrauli at a cost of US \$ 5,000,000. The resettlement and environmental problems highlighted by EdF in their study of Singrauli are currently of immense concern to the Bank.

Methodology

This thesis is based on empirical evidence gathered over seven weeks of field work in Singrauli and New Delhi. I carried out this field work during December 1991 and January 1992 -- five weeks in Singrauli and two weeks in Delhi. My field observations are supported by 12 weeks (June - August 1991) of prior research and interviewing at The World Bank Headquarters in Washington, DC. In Singrauli I was assisted by two researchers. We interviewed a total of 183 people including: a) 130 people displaced by projects, non-oustee locals, and migrants; b) 17 staff of the coal and power parastatals responsible for relocating the people displaced by their projects; c) 10 staff of local municipal agencies involved in the resettlement; d) seven staff members of non-governmental organizations working with displaced people; e) eight local leaders and leaders of trade unions; f) four contractors; g) two private industrialists; g) five high level central government officials in New Delhi, including those in the Town and Country Planning Organization, and Ministry of Urban Development.

This research followed up on the findings of the Electricité de France (EdF) study commissioned by NTPC. As with the EdF study (1991), this research concentrated on the industrial belt between Anpara (UP) and Waidhan (MP), which is to the west of the Rihand reservoir. Since 1978, many displacements have occurred in this study area and most of the resettlement colonies developed by the power and coal company are also located here. Selecting this area, which straddles the border of the two states (MP and UP), also allowed

us to comparatively examine both the resettlement norms and the institutional structures for resettlement in the two states, and to study their impact on performance.

We visited eight resettlement colonies developed by expropriating firms, both in UP and MP, and several surrounding villages where only a few households have been displaced. We examined one resettlement colony and one village in detail -- NTPC's Navjivan Vihar resettlement colony (in MP), and Kohroul village (in UP), respectively. These settlements were previously examined by the EdF study (1991). EdF had found Navjivan Vihar, like all other planned resettlement colonies in the area, to be a deplorable living environment, while Kohroul and other such natural village-like settlements were relatively better. Our initial interviews indicated, however, that local people and oustees actually prefer some of the resettlement colonies, especially Navjivan Vihar, to the villages. We decided to look more closely into this unexpected preference for resettlement colonies and to analyze the reasons why these might be preferred. Our trips included visits to a village where people are resisting displacement, and to one where oustees have purchased additional land.

Two important data sources frequently referred to in this thesis are a) the socioeconomic chapter of the Environmental Impact Assessment study (1991) commissioned by NTPC and conducted by Electricité de France, and b) a report on the Singrauli region (1990) prepared by Town and Country Planning Organization, Ministry of Urban Development, New Delhi. Other sources include World Bank documents and data gathered from municipal and central agencies, and from the coal and power companies.

II. BARGAINING FOR BENEFITS

“Land oustees (are) resisting (they are not) accepting rehabilitation sites and (are) not vacating the acquired land. (The) problem (is) very acute in case of ... Khadia project.”

“Villagers have been obstructing work (in a resettlement colony). Some people have constructed unauthorized houses. They have cultivated crops and obstructed construction activities.”¹²

“..land oustees and shop keepers have embarked on an agitation to press their demands for employment opportunities, electrification of (resettlement) area, release of compensation, allotment of plots etc. They have sat on ‘dharna’ (sit-in protest) outside the administrative building... Efforts are being made to discontinue the agitation through the good offices of District Magistrate and Sub Divisional Magistrate”¹³

Electricité de France consultants and World Bank staff contend that the development of the Singrauli area has not included citizen participation and that the resettlement programs have been top-down. The above remarks taken from office memorandums of the coal and power company, and my field research indicate these claims are not entirely accurate. While it is true that local people have not formally participated in project decision-making, their resistance has led to negotiations with the expropriating companies -- negotiation, then, serves as a mechanism to ensure involvement of the local people and oustees in the decision-making process.

In this chapter I will describe some of the gains that this bargaining process has affected. I will delineate the constraints to oustee mobilization and discuss how the oustees were able to overcome these constraints. Finally, I will examine conditions that facilitated negotiation as opposed to those that undermined it.

¹² NCL (1991). Office Memorandums.

¹³ NTPC (1992). “IR Scene in Brief.” Human Resources Information Report.

RESISTANCE AND NEGOTIATION

Resettlement evaluations and literature indicate that resistance is to be expected in resettlement projects (Cernea 1988). Experts note that people resist because: i) they recognize the disadvantages of relocation; ii) they do not want to leave old areas and lose control over land; iii) relocation implies living next to strangers; and iv) it means loss of independence and more control by authorities (Mc Allister 1991). While all of these fears are real and play an important role, the primary motivation behind the resistance by oustees in Singrauli is different. Few of the resisting groups are saying that they will not move -- they contend that they will move only if they are given a better deal. Rather than resisting because they are afraid, in Singrauli the oustees are using resistance as a stepping stone to negotiation -- they are forcing the expropriating companies to come to the negotiating table, and they are bargaining for more benefits.

Although incidents of oustee resistance have been few, they are increasing. While in the initial phases, in the early eighties, the coal and power company -- NCL and NTPC, respectively -- had little trouble acquiring land and getting people to move, both companies are now finding it difficult to move people off their project sites to the resettlement colonies. The oustees have become increasingly effective negotiators and their demand-making has created pressures on the district administration and companies to offer more benefits and to improve their resettlement performance. This resistance and negotiation has helped improve conditions in resettlement colonies -- it has resulted in their being better located and better serviced. In addition, it has drawn the attention of the central government and international donors agencies; they have been forced to pay attention to the economic rehabilitation of the displaced and, hence, to the employment problem in Singrauli. Two recent cases of successful negotiation by oustees are described below.

The power company's Vindhyachal Super Thermal Power Plant (VSTPP), for example, has been trying unsuccessfully for three years to complete work on the first of its

six proposed ash dikes. To raise the level and capacity of the ash dike, VSTPP needs to immediately evacuate 40 of the 290 families of Shahpur village. The 40 families, however, are refusing to move to their designated plots in the Navjivan Vihar resettlement colony. They argue that of the 40 families 19 are "eligible" for jobs since they fit the criteria for age and amount of land lost.¹⁴ These oustees demand that all 19 be hired by the power company which is willing to hire only six. They also demand better services in Sector 3 of Navjivan Vihar, to which they are to move, since it is poorly serviced relative to Sectors 1 and 2. Based on the poor track record of the power company in keeping its promises, and on the experiences of other oustees, they insist that their demands be met prior to their move. Given this position, and pressure from the new Additional District Collector (ADC), the power company has been forced to revise its offer: instead of employing only six of the 19 eligible candidates, it has agreed to hire nine. Further, the ADC is attempting to persuade private firms in the area to employ the remaining 10 candidates, and has also offered the oustees loans of Rs. 5000 - 20,000 (\$ 200 - 800) to set up their own businesses. Finally, as the Chief Executive Officer of the Special Area Development Authority (SADA) -- the local municipal agency that is responsible for developing VSTPP's Navjivan Vihar resettlement colony -- the ADC is attempting to speed up infrastructure development in Navjivan Vihar, in general, and in Sector 3, in particular.

Similarly, the people of Khadia village are refusing to move off land acquired by the coal company (NCL). They argue that the resettlement site at Jawahar Nagar is too far, over 10 km, from the project area. They have demanded to be resettled closer to the project area and have identified a site currently slated for NCL employee housing. NCL has succumbed to their demand, that is, it will reallocate the site designated for employee housing for resettlement, and abandon its development plans for the Jawahar Nagar site.

¹⁴ The criteria established by NTPC is that the family should have lost 1-5 acres of land and the male member should be between 18-33 years of age. These are discussed in further detail later.

The oustees' success in organizing to negotiate is remarkable, given the following constraints. First, the Singrauli area is characterized by a caste structure that is fairly elaborate and rigid.¹⁵ This stratification serves as a deterrent to community organizing or collaboration. Despite encouragement from the firms and municipal agencies, oustees have been reluctant to form organizations such as cooperatives. Ousteers and other locals argue that these are unlikely to succeed because there is no strong community feeling or sense of unity. Further, local people have little faith in their "leaders" who are almost universally perceived to be involved solely for personal gain and, hence, useless. Few people feel that they can turn to either local leaders or political parties for support. According to a leader of the UKMP (Udvasit Kisan Mazdoor Parishad)¹⁶ union, the lack of faith in leaders is, in part, due to the fact that many of the leaders (including himself) belong to higher castes. The lower castes still retain their mistrust of the upper castes, and, in general, people are reluctant to cooperate with other castes.

Second, there exist few institutions that currently facilitate participation in the area. With the designation/rezoning of villages as urban areas, the village councils or panchayats, the only existing representative framework, have become defunct.¹⁷ NGOs in the area are

¹⁵ The EdF study indicates that most of these castes are in some way involved in agriculture even if they are, for example, primarily merchants or craftspersons or herders. The higher and intermediary castes are more often cultivators while agricultural laborers tend to belong to the lower castes. However, according to EdF, there is no sharp division along caste lines with respect to landholdings, that is, the size of landholding is not strongly correlated to caste.

Based on a 1675 household sample, EdF classified the castes as follows (because 10% of the sample were migrants, the following totals to 90%):

i) the higher Brahmin and Rajput/ Thakur castes (26% of the total). The Brahmins' primary source of income tends to be their property and traditionally they have been the community leaders and spokespersons. But it is the Thakurs who are the better farmers and own the large estates.

ii) intermediary castes (37% of the respondents). The more respected of these are the peasant and merchant castes (Sahu, Jaiswal, Teli/ Gupta) who tend to own a fair amount of land and hold a virtual monopoly of commercial activity. The intermediary castes also include the market gardeners (Koiris), herders (Yadavs), craftspersons such as metal workers (Lohar), weaver (Panikha), potters (Kumhar), and, further down, the barbers (Nai).

iii) the lowest status castes (26%) often referred to as "scheduled castes," "scheduled tribes," and other "backward classes." These include leather workers (Chamars), and tribals and/or forest produce gatherers (such as Baigas, Khairvars, Dhairkars, Gonds, Biyars, Gaurs).

¹⁶ Udvasit Kisan Mazdoor Parishad translates as Union of Displaced Farmers and Workers.

¹⁷ About 133 villages in MP and several others in UP have now been designated as municipal/ urban areas.

currently relatively weak and are not actively involved in any significant projects, and issues. While several oustee trade unions have been established in the area, they represent the interests of only a small proportion of the population, that is, the employed oustees.¹⁸

FACTORS THAT ENGENDERED COLLABORATION AND NEGOTIATION

Given the stratified structure of the local society, and the lack of local institutions, the task of organizing to press for demands is by no means easy. How, then, were the oustees able to overcome these constraints? In this section I will discuss three factors that have helped overcome these constraints and have led to successful collaboration and negotiation. One critical factor has been the politicization of the resettlement issue and the mobilization of oustees. In Singrauli, it is local NGOs that have catalyzed this process. Second, the compensatory package has created an unforeseen overlap of interests between the different classes and castes of oustees. Third, the history and experience with displacement has been accompanied by “learning,” by oustees and expropriating firms.

i) Politicization of resettlement and oustee mobilization

Although local NGOs in the area are currently not active in resettlement, in the past they have played a critical role (roughly 1983 - 1989) -- they mobilized the displaced in the area and, simultaneously, used the media and their contacts in New Delhi to draw the attention of the central government and international donor agencies to the resettlement problems in Singrauli. Once the process was catalyzed and as the issue became increasingly politicized the oustees were able to without the NGOs and organize independently. In the more recent instances of successful resistance (in Shahpur and Khadia village), mentioned earlier in this chapter, the NGOs played a minimal role. As a

¹⁸ The issues that they have been concerned with are better services in the resettlement colonies where they reside, and better employee benefits. However, these are emerging as relatively strong unions and the question of whether they can take on a broader set of issues needs to be explored.

leader of one of the NGOs notes, this is probably more indicative of NGO success than of failure -- it indicates that they have been exceptionally successful in their attempts at politicizing the issues and at grass roots mobilization. And this success has meant that they have done themselves out of work.¹⁹ Some of the strategies that these NGOs adopted to alter the situation, and the impact of their efforts are discussed below.

To mobilize the displaced, the local NGOs -- the Lokhit Samiti, the UKMP, and the Banwasi Seva Ashram -- adopted a variety of strategies. They used the media and forums such as public meetings, to increase oustees' awareness of their rights and of resettlement norms that expropriators are required to follow. Further, these institutions, especially the Banwasi Sewa Ashram, filed court cases against expropriating companies. Some of these resulted in legal wins, such as stay orders on certain displacements and the Supreme Court's ban on "dispossession," which helped legitimize the oustee cause. The legal wins and an increasing awareness of rights enabled NGOs and local leaders to organize the local people to demonstrate, to resist, and demand their rights. They organized a series of public demonstrations to highlight the problems of oustees, and at times the resisting groups physically obstructed work and even threatened violence to chase contractors, assessors, and company officials off the sites.

But local resistance has become increasingly common and effective only because NGOs have been able to bring judicial, central government, and donor pressures to bear on behalf of the oustees. These political pressures have discouraged local authorities from using force to remove oustees from site, and have forced expropriating companies to improve their resettlement performance. That is, one of the critical elements in this process has been top-down support for bottom-up pressures.

The Chilkadand case, although extreme, provides an insight into the dynamics of resistance and the repertoire of strategies used. Several of the families that now reside in

¹⁹ Interview Mr. Avdesh Kumar, Lokhit Samiti (1/92). The Lokhit Samiti is planning to relocate and work on ecological issues. The UKMP is practically defunct; the number of branch offices has declined from 11 to two, and only about 10 workers continue to be actively associated with this organization.

the power company's Chilkadand resettlement colony have been displaced twice -- they first lost their land in the Rihand submergence in 1961, and, again, when the village where they had resettled was expropriated, by the power company, in 1978. The residents soon discovered, to their dismay, that they were to be displaced yet again. The power company sold Chilkadand's land to the coal company which had discovered coal reserves in the immediate vicinity, and was planning to commence mining operations in the area. The residents of Chilkadand, however, now refused to move. The coal company requested the district administration for help. When the police arrested some of the leaders of the protest, the entire village joined in a sit-in protest outside the jail until the arrested villagers were released. When the coal company attempted to remove them forcibly from land that it now legally owned, the villagers contacted the leader of the Banwasi Seva Ashram who had already successfully obtained a court ban on dispossession. This NGO leader showed up on site with a copy of the court order and the bulldozers had to turn back. These confrontations culminated in a major demonstration organized by the Lokhit Samiti in early 1988. About 15,000 people demonstrated against both the power and coal companies and the World Bank, which had partially funded the power plant, to protest "the continuing trauma and insecurity that repeated displacements had created for them over the last three decades" (Kothari 1988).

In addition, local NGO leaders visited New Delhi and used their contacts in the capital to get media coverage and to draw national and international attention to the issue. The NGOs leaders were able to meet with key central government officials to request that the displacement of Chilkadand be stopped. Meanwhile, with the Environmental Defense Fund berating the World Bank in Washington for funding environmental and human disasters such as those in Singrauli,²⁰ the Bank was in turn pressuring the Indian government to redress critical resettlement problems. Under pressure from central government ministers the coal company suspended its plans for displacing Chilkadand, and

²⁰ See Bruce Rich (1989).

the power company hastened to provide the long-promised infrastructure and amenities. Subsequently the coal company has commenced negotiations with Chilkadand residents who are now in a position of strength.

In effect there has been a “sandwich strategy” where the expropriating companies are subjected to simultaneous pressure from below and from above, that is, from local people, and the central government and donor agencies, respectively.²¹ It is these simultaneous pressures that have forced the district administration and companies to come to the bargaining table to negotiate benefits and to improve their resettlement performance. In successfully politicizing the issue the NGOs have altered the antecedent local conditions and established a bargaining position for oustees -- the oustees are now able to take over and to lead their own negotiations.

ii) The “equalizing” compensation package

A second factor that has been critical to successful collaboration and negotiation, is the compensation package itself. Instances where oustees have able to organize can be explained as “crisis induced collaboration,” that is, in the face of a common crisis even a highly differentiated community can overcome its differences (see, for instance, Tandler 1987, Peluso 1992). The displacements effect all castes and economic classes. But the reason why these collaborations survived beyond the resistance stage and through the negotiations phase is that the package helped establish a set of common goals -- it created an unexpected and uncommon overlap of interests between different castes and classes of oustees, as we see below.

The firms' policy of employing all oustees only in unskilled jobs, irrespective of their caste and class, and of allotting them similar sized plots in the same resettlement colony, has had, to use Tandler's term, an "equalizing" effect. Shahpur residents who

²¹ See Fox (1986) for "sandwich strategy."

have resisted displacement for three long years note that caste considerations are far less important when basic survival is in question. They feel that they are fighting for a common cause -- jobs to sustain themselves, and basic services and amenities in the resettlement colonies to which they are all to move. While jobs are not critical to the survival of the richer oustees they are, nevertheless, high on the priority list of even the higher caste and/or more affluent families because these jobs offer excellent salaries and benefits. Demands such as one job per family and services in resettlement colonies, then, are in the interest of all classes and castes. Similarly, a flat "per acre" compensation rate for land expropriated means that both the rich and poor benefit if they demand a higher per acre rate. In other words, the resettlement package and policies have -- by default -- blurred the divisions and made for strong alliances across caste and class lines. These alliances that have empowered oustees to negotiate.

iii) Learning with experience

Finally, a process of "social learning" has taken place, both on the part of the oustees and by the companies. This learning and increasing awareness mean that oustees have learned how to press for their demands more effectively. The companies have improved their norms and improvised on their procedures not only because of increasing pressure by oustees, local NGOs, their donors, and the central government, but also because of their own learning. That is, the increasingly successful negotiations by oustees and subsequent improvement in the resettlement norms and performance of companies reflect this learning.

There is a growing history of resettlement in the area. The first displacements and resettlement affected by the coal and power companies took place in 1978. Since then land has been expropriated for two additional power plants and for expansion of mining activity. Most people in the area know someone or have heard of someone who has been ousted. Due to their personal contacts, efforts of NGOs, and media coverage, potential oustees are

aware of the track record of the different companies. They are familiar both with cases of families that were devastated by the displacement, as well as those that used resettlement as a stepping stone to success. And they know by now how the negotiations process works -- they know, for example, that they should insist that their demands be met prior to moving because their bargaining power declines after they move. In short, oustees know better what to bargain for and how.

Similarly, the expropriating companies have also learned. Their learning is evident from their improving norms, procedures, and changing attitude toward the issue of resettlement. Instead of disbursing compensation money through a local municipal agency, for example, the coal company now transfers cash compensation directly to oustees' bank accounts -- they help oustees open an account if they do not already have one. This has helped make the procedure easier for oustees and, by reducing opportunities for graft by public officials, also more efficient. To offer another example, while the power company had paid cash compensation at the rate of Rs. 4500 per acre of land acquired, the coal company, which acquired land afterwards, paid Rs. 7700 per acre. According to the senior land acquisition officer of the coal company, they raised the rates because they realized that the previous rates were low -- the land sales records, on which the compensation rates are based, tend to record values that are lower than actual market rates.²² They also realized that there is a substantial lag between when land values are assessed and compensation monies are disbursed, that is, land values are higher by the time the compensation is actually paid, three or four years later. More important, he noted that, the increase in compensation rates helped reduce people's resistance to displacement -- "the people would

²² The compensation rate calculation is based on land sales records -- the price is averaged over the three years preceding the first "notification" or intention to acquire, that is, the declaration of Section 4. The compensation money is paid after the area is finally placed under Section 9, which indicates final acquisition. There are two major problems with this system. First, the usual time frame between the declaration of Section 4 to acquisition under Section 9 is about three years. This implies that the compensation is based on land rates that were applicable three to six years prior to when the compensation is actually paid. Second, the sales values noted in the records tend to be lower than the actual (market) rate at which the land was sold; buyers and sellers almost invariably under-declare the value of the sale to save on taxes and fees.

stand with their sticks and refuse to let us measure the house (to assess its value) ... These things make one liberal.”

The comparison or implicit competition set up between the coal and power company has speeded up the “learning process,” facilitated negotiation, and has unexpectedly helped improve resettlement performance. Because there are two public sector firms simultaneously affecting resettlement in the area the oustees can, and do, compare the firms’ performance in implementing resettlement norms. Since both firms must provide serviced plots, for example, oustees compare the services provided and pressure the expropriating firm to match the standards of the better resettlement colonies. Further, the oustees can pressure firms not only to improve implementation of norms but to improve the norms themselves -- the power company, for example, was forced to improve its eligibility criteria for plot allocation to match the more “liberal” norm of the coal company. The coal company which came in later, started offering one plot to every adult male in the family in contrast to the power company which had been offering only one 60x40 plot per family,²³ irrespective of number of adult males in the family. Under pressure from oustees and local NGO leaders, the power company was later compelled to allot an additional plot to families with over eight members and, more recently, to families with more than seven members.²⁴ This indicates that establishing such competitive pressures helps oustees press for more benefits and can help improve resettlement performance.

In sum, although there were no formal mechanisms to incorporate oustee participation in the resettlement process, the oustees have participated. They have used resistance tactics to start a process of negotiation with the expropriating firms. Critical to this process has been the politicizing of the oustees and resettlement issue in the area, in this case by NGOs. This politicizing has meant that oustee awareness of their rights and of resettlement norms has increased manifold. Legal wins, increasing media attention, and

²³ “Family” here is defined as all members sharing a kitchen.

²⁴ Vindhychal offers a second plot to families over eight. The more recent Rihand power plant offers a second plot to families over seven members.

pressure from the central government mean that powerful top-down pressures have come to bear on the side of the oustees -- these have helped reduce the threat of forced eviction, increased the legitimacy of the oustee cause, and have forced the companies to take the resettlement issue more seriously. Further, one of the reasons why this stratified society has able to come together, albeit for short term issue-specific alliances, to effectively pressure from below is that the benefits to be accrued from bargaining are of interest to the rich and poor alike. The compensation package has created an unexpected alliance between the different castes and classes of oustees. Finally, with growing repertoire of resettlement experiences and because of “competition” among firms, both the oustees and firms have learned how to do better -- the oustees have learned how to negotiate better and the firms have been improving their resettlement norms and procedures. But the important outcome of these processes is that the antecedent conditions have changed -- they have cleared the information bottlenecks and have firmly established a bargaining position for the oustees.

BARGAINING DYNAMICS AND LESSONS LEARNED

Negotiations between oustees and firms now take place -- information does exist, the oustees have a bargaining position, and the firms are aware that they cannot afford to ignore oustee demands. Some attempts at negotiation, however, have been more successful than others. In this section I will examine conditions that have facilitated negotiation and those that have undermined it.

A. Negotiations have been more successful when the oustees negotiate directly with one agency rather than with two or more agencies. And these negotiations have been especially successful when the single agency has final decision-making powers. This is evident from the following discussion regarding bargaining experience with the NTPC-SADA coalition -- that is, the power company-local development agency alliance -- as compared to that of bargaining only with the coal company.

The major procedural distinction between resettlement by the two companies is that while the coal company is directly responsible for the resettlement of its oustees, the power company is only indirectly responsible. In Madhya Pradesh, for instance, the responsibility of resettling people displaced by the power plant lies with SADA-Singrauli, the local development agency. That is, NTPC transfers funds to SADA which, in turn, handles the design and development of the resettlement colony, manages plot allocations, and disburses compensation. What effect does the insertion of an agency such as SADA have?

The insertion of an intermediate agency has served as a barrier to negotiation and has diffused the pressures targeted on the expropriating firm -- the power company cannot be held directly accountable for its resettlement performance either by the oustees, or by central government and international agencies. The oustees disapprove of this mechanism. They find themselves shuttling back and forth between SADA and the power company with their grievances and requests, and most often in vain. SADA contends that, unlike the power company, it has neither the financial resources nor personnel to either help the oustees or to be more responsive, and that the key problems lie in the norms and not their implementation. SADA suggests that the oustees pressure the power company to help resolve their problems and provide more jobs. On the other end, the power company claims there is little it can do -- it has followed the norms and has transferred required funds to SADA to implement, and it is simply that SADA is not doing its job. Given their frustrating experience with SADA, oustees find the power company's arguments more persuasive -- they feel that they would be better off if the power company handled their resettlement directly. In essence, the insertion of an intermediate agency into the resettlement process has served to complicate the situation, made the task administratively complex, and has removed the benefits of having a single target to pressure.

In contrast, negotiating with the coal company, alone, has been easier and more successful. The coal company cannot blame another agency, and is held directly

accountable by the oustees. In addition, the company headquarters are located in Singrauli which enables oustees and supportive trade unions to bargain directly with the “high command” and affect immediate gains. In comparison, NTPC is able to use delay tactics to defer decision-making and to scale down demands, on the basis that it has limited powers and that the final authority lies with the Head Office in Delhi. NTPC unionists note that local management does listen to them but this allows only limited gains since most major decisions need approval from the Head Office. That is, direct negotiations with one agency were more especially successful because final decision making authority was locally based.

B i) Negotiating with the firms has been easier and more successful than negotiating with local/ state agencies. I will use the NTPC-SADA experience, again, to discuss how negotiation may be adversely affected by local/ state agencies -- especially agencies that have coercive power. Residents of Shahpur have been resisting their displacement by the power company for about three years. The Additional District Collector, who is also the Chief Executive Officer of SADA, has stepped in as a mediator between the oustees and the power plant. He has convinced the power plant managers to increase the number of jobs, has agreed to give the oustees business credit, and also offered to persuade private firms in the area to hire some of the unemployed. When the oustees continued to resist, however, SADA and the office of the Collector threatened to use their coercive power against the oustees. They threatened to use police force to disband the oustees’ resistance and forcibly move them; to prove that the claims of many of the oustees were illegal; and to take legal action against others, for example, those who were cultivating state owned land, fishing illegally in the Rihand reservoir, or illegally distilling country liquor. In other words, the SADA-NTPC alliance has polarized the power equation -- the state/ local agency can threaten to use its coercive power in favor of NTPC and against the oustees. The introduction of this state agency with such coercive power has helped to thwart the oustees’ demands.

B ii) Another reason why negotiating with firms is easier than negotiating with state agencies is that the firms have a direct and immediate stake in the outcome. The firms have to bear direct and visible costs, such as loss of production, if they do not reach agreement with resisting oustees. The resistance in Shahpur, for example, has delayed construction work on the ash dike where ash slurry from the power plant is dumped. With the delay the urgency of the task of raising the level of the proposed ash dike has been increasing -- because the existing ash dike is reaching full capacity the power company is desperate to resolve the problem of oustee-resistance. Unlike SADA, the power company cannot afford more delay in the construction of the ash dike -- it is now willing to accept the demands that it can fulfill.

B iii) A final reason why it may be easier to negotiate with firms lies in the perception that oustees and other villagers have of their bargaining position vis-a-vis the firms and state agencies. Villagers and non-oustees, interestingly enough, tend not to use bargaining to obtain benefits such as better services. Unlike oustees in resettlement colonies, villagers in Kohroul, for instance, do not rely on demand-making to improve their living condition, to get, for example, electric connections. These villagers note that they have a weak bargaining position. Their only basis for bargaining is their vote -- a right that all citizens have. In contrast, for oustees, displacement affected by the firms and by the state becomes a source of enhanced bargaining power.

Further, villagers and oustees do not envision any substantial gains from organized demand-making from state/ local agencies given the poor financial status of these agencies, their broad constituency and non-responsiveness, in general. Even potential oustees or residents of villages not yet earmarked for acquisition note that they will organize against the coal and power companies, when the occasion arises, since there are substantial gains to be obtained from negotiating directly with these companies. In other words, they do not expect to be able to claim their rights and demands from the state agencies -- even if the

state acquires their land, as we will see below -- but do perceive their rights to be claimable from the state-owned firms.

This is evident in the following case. When SADA-Singrauli acquired Harrai village the oustees did not organize to protest or to press for more benefits. However, when SADA sold this land to the coal company (at a higher price allegedly to cover development costs) for their headquarters complex, the oustees were outraged. They argued that they would have negotiated directly with the coal company for plots, jobs, and better compensation -- if they had not been cheated, and that if SADA had not played this dubious middleman role. They accused SADA of speculation at their expense. The coal company's officials cite this case to exemplify how their "generosity" towards the oustees backfired -- the more they do, the more impossible the demands of the oustees become. In contrast, since SADA is perceived to be resource poor, and because there is no precedent of SADA offering jobs in exchange for land, it is not harassed or required to improve its resettlement performance.

Hence, one of the reasons why oustees are more willing and able to negotiate with the expropriating companies and not with local/ state agencies is that the firms are resource rich. Second, the firms tend to be more responsive since they have a greater and immediate stake in the outcome. Unlike SADA, for example, the power company cannot afford long delays in the construction of the ash dike -- the firms have to bear direct and visible costs, such as loss of production, if they do not reach agreement with resisting oustees. A third reason why oustees are better able to negotiate with the firms, albeit state-owned, is that the firms do not have recourse to the coercive power that other state institutions tend to have. To use Peluso's (1992) terminology, the "limits" within which they can act are "known" to be greater when negotiating with institutions with less coercive power.

In sum, this discussion suggests that to facilitate bargaining and, subsequently to, improve resettlement performance, it is important to make a single agency responsible for the task of resettlement; this makes the task administratively simpler, and allows for both

top-down and bottom-up pressures to be directly targeted. The discussion also suggests that it may be better if the single agency is the expropriating company since it has an immediate stake in the outcome, is in a better position to evaluate the relative costs and benefits of resistance, has the resources to offer benefits in exchange for oustee support. Finally, and probably more important, requiring the expropriating company itself to resettle families that it displaces facilitates both negotiation and implementation because it makes the company directly accountable for its resettlement performance, and makes it internalize some of the costs of displacement. In contrast, state institutions that do not have these advantages, and have access to coercive power can polarize the power balance and adversely affect negotiation. This does not imply, however, that the state has no role to play, an issue that will be discussed in the concluding section.

III. LAND AS A COPING STRATEGY

Singrauli's resettlement experience brings into question the conventional wisdom that intensive land use and high prices preclude the possibility of providing oustees with land-for-land in urban, and urbanizing areas. In Singrauli oustees have been able to purchase land, often by using the compensation they were paid for their land. They have bought land in this urbanizing area despite scarcity of land, and relatively low compensation rates. This unforeseen success is particularly remarkable given the constraints, and the distortions in the land market. Further, contrary to the notion that land is important only in rural areas and for agricultural resettlement, the Singrauli case shows that land plays a critical role in re-establishing the displaced even in urbanizing areas. It questions the usefulness of dichotomizing resettlement strategies into urban versus rural, and of emphasizing jobs versus land for resettling the displaced in urban and urbanizing areas.

In this chapter I will first, lay out the current thinking on the role of land in urban and rural resettlement policies, and the "urban approach" that has been adopted in Singrauli. Second, I will discuss the resettlement package offered to oustees in exchange for appropriated land, and the distortions it has caused in the land market. Third, I will analyze the process used by oustees to purchase additional land, and the lessons that their success has to offer not only for land transfer in resettlement programs but for land policy in general. In the final section of this chapter I will discuss the critical role of land in strategies adopted by oustees to re-establish themselves socially and economically in this urbanizing area.

Jobs versus Land and Urban versus Rural Resettlement

Recent relocation policies emphasize the importance of economic rehabilitation in addition to, and distinct from, physical resettlement.²⁵ These strongly recommend a “land-for land” strategy -- of providing alternative land in exchange for land expropriated -- wherever possible, and especially in cases where development projects necessitate large-scale acquisition of agricultural land. The underlying argument for this strategy is that oustees have not been able to purchase land with their cash compensation. Reasons commonly cited for this failure are: the land expropriated tends to be undervalued and the compensation paid is inadequate; compensation is often paid in installments and, hence, tends to be spent on consumption goods instead of being productively invested; and large scale acquisition distorts land markets and prices in the area with demand outstripping supply. With the loss of their primary asset, over the long run, displaced people suffer a substantial decrease in their standard of living. Resettlement experts argue that land is the crucial factor for economically and socially re-establishing the rural displaced since a vast majority tend to be farmers or agricultural laborers.

In contrast, in urban and peri-urban relocation projects the emphasis is on non land-based strategies, that is, on economic opportunities in the service and industrial sectors, and self-employment.²⁶ Planners generally do not consider land-for-land to be a viable alternative for relocation projects in urban and urbanizing areas. This is not surprising, given the high prices and intensive land use considered to be characteristic of urban land. A World Bank technical paper on resettlement (1988), hence, suggests that when the amount of available farm land is insufficient to accommodate all displaced families, planning for urban relocation of some groups may be required.

²⁵ Policies of, for example, World Bank, Inter-American Development Bank, and United Nations Center for Housing Studies (HABITAT). See papers presented at the "Urban Relocation: Policy and Practice" Expert Meeting in Rotterdam, February 1992, by Courtney, Deruyterre, and Hundsalz, respectively.

²⁶ Given the difficulties in creating alternative employment for oustees, however, these projects have tended to focus only on providing resettlement sites near the previous settlement and existing employment opportunities (see Chapter 1).

In Singrauli, resettlement programs follow this urban logic. For a majority of the displaced agriculture was a source of income -- even for those, for example, who belong to merchant, or craftspersons castes. In exchange for their land, however, the expropriating firms provide oustees with a 60'x40' plot of land in a resettlement colony which the firms finance. Officials of expropriating firms contend that there is little agricultural land available in Singrauli since it is urbanizing and because of rapid expansion of mining. These officials also claim that the serviced urban land that they provide to oustees is a good deal, especially for marginal farmers, because the expropriated land was usually unirrigated and the holdings were often small. In their view these marginal landholdings are not a source of income and, hence, the oustees need to be merely compensated for the loss of their shelter -- the urban plots are better since they offer better access to public services and infrastructure. The following findings put into question some of these assumptions.

The "inadequate" resettlement package

The resettlement affected by the public sector coal and power companies have been severely criticized by leaders of local NGOs, consultants Electricité de France (EdF), and World Bank (WB) staff. These critics argue that the resettlement package which offers cash compensation, an urban plot, and potentially a job is inadequate. First, the resettlement colonies are deplorable -- they lack infrastructure and amenities, and are poorly located (EdF 1991). The plots and colonies, they argue, are too cramped for rural households accustomed to large houses and an open environment. Second, unlike a land-for-land policy, providing urban plots does not help to economically re-establish the displaced. Third, the cash compensation paid for expropriated land is inadequate and oustees have not been able to buy alternative land (EdF 1991). Finally, while the oustees expected jobs with the power plants and coal mines, the companies have not been able to employ them all (EdF 1991). While I will discuss the latter point in Chapter Four, in the

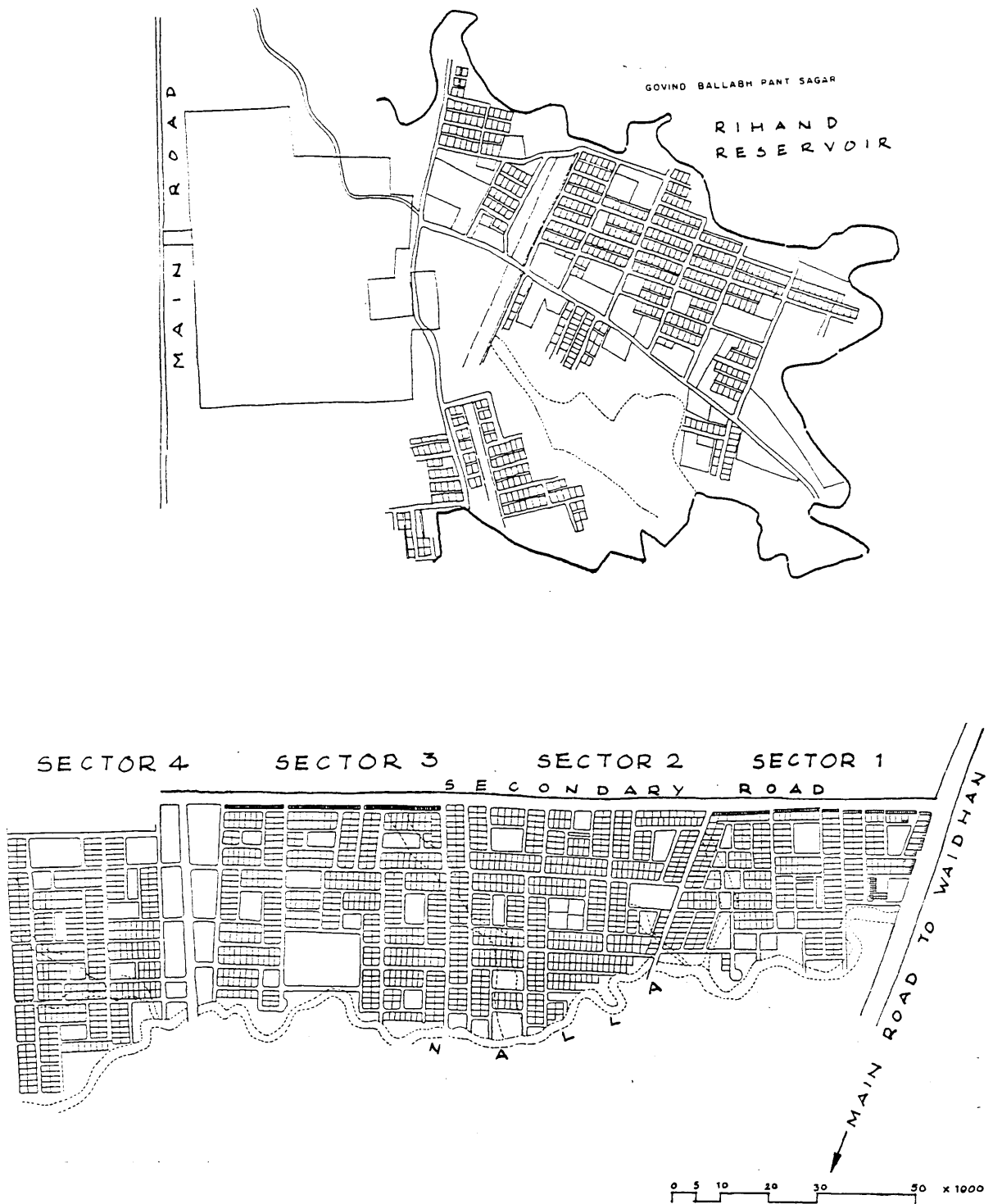


Figure 2. Layout plans of two resettlement colonies. NCL's Rehata Resettlement Colony (above) and NTPC's Navjivan Vihar Resettlement Colony (below). Note the 60'x40' plots.

following section I will focus on some of the ways that oustees have responded to the resettlement package and used it to their benefit. But first, I will delineate the resettlement package and highlight the differences in the deal offered by the two companies.

People displaced by the coal and power companies have been offered the following resettlement package: i) everyone who owns a house on the land that the firms expropriate, irrespective of whether or not they own the land, is entitled to cash compensation for the house, and to a house plot -- usually 60'x40' -- in a resettlement colony (see Figure 2) financed by the expropriating company; ii) land owners, with a legal title, receive a cash compensation for land lost and for other assets, such as fruit trees, that they forfeit; iii) land owners that fit the eligibility criteria, discussed below, are given preference in unskilled jobs with these firms. As mentioned in the previous chapter, the eligibility criteria established by the two companies are significantly different. First, according to the coal company's norms, oustees with holdings of 0.5 acres or more are eligible for one job per family, while the power company only considers those with a landholding of between 1-5 acres for a job, and hiring is subject to availability. Second, the coal company offers a 60'x40' plot of land to every adult male member of an ousted family. The power company allots one plot per ousted "family" -- defined as members sharing a kitchen -- irrespective of the number of adult males living in the joint family; families are allotted more than one plot of land, only if the sons hold separate titles to land or if the family is larger than eight people.

MAKING THE LAND TRANSFER PROCESS WORK

In this section I will show that despite increasing land prices and intensification of land use in Singrauli, oustees have, contrary to expectations, been able to purchase land in addition to the 60'x40' plot that they obtained from expropriating firms. They have used their own resources and compensation money to purchase land in Singrauli and outside the

region. First, I will examine the impact that the threat of expropriation has had on the land market. I will, then, focus on how oustees managed to purchase additional land and, finally, the lessons that their success has to offer.

Land markets and the threat of expropriation

The above compensatory resettlement package has caused distortions in the land market, and these distortions have been exacerbated by differences in the deals offered by the coal and power companies. In contrast to criticisms that the resettlement package is “inadequate” and undesirable, these distortions indicate that the package is of significant value. In this subsection I will examine these distortions -- people intentionally buy land in areas that have already been designated for acquisition, and instead of causing land prices to plummet, the threat of acquisition has led to increasing land values.

To acquire land the state²⁷ is required to follow a procedure wherein the land is initially “notified,”²⁸ to test project feasibility at the given site, and is then placed under Section 9 which indicates final acquisition. Once land is notified for acquisition no further sales and transfers are allowed; the land can not be registered in another name. Despite this rule, land sales in “notified areas” are not uncommon. People still buy land and, surprisingly enough, at existing market rates. This is surprising because it is the seller -- the original title holder -- who will be compensated when the land is acquired by the state. Further inquiry revealed that buyers are well aware of this constraint -- that the title will

²⁷ The coal and power companies are public sector firms and while they do bear all costs the land is acquired in the name of the Government of India, using eminent domain powers under the LAA and CBA act (see below), respectively, and transferred to them.

²⁸ “Notified” area refers to land that has been designated for a given purpose; in this case it refers to land the state intends to acquire. Land can be acquired by the state under the Land Acquisition Act (LAA) of 1894; it is first placed under Section 4, then 6, and finally Section 9. Alternatively land can be acquired by the public sector coal company under the Coal Bearing Areas Act (CBA) of 1957; the three stages here are Section 4, 7, and 9. Under Section 4 the government publishes a preliminary notice identifying the land to be acquired and inviting objections within 30 days. Project feasibility is tested in this stage. The land is then placed under Section 6 of the LAA or Section 7 of the CBA indicating that the state intends to acquire the land for a public purpose. Objections can also be raised at this stage. Finally, the land is placed under Section 9 which indicates acquisition; at this stage property owners only have compensation rights. [Sources: Bose (1991) and interviews with revenue officers of the state government and NCL.]

remain with the seller, and they will not be eligible for cash compensation for the land. But buyers also know that for every house that is displaced the house owners are given a 60'x40' (0.06 acres) urban plot in exchange. That is, when they build a house on land which they do not legally own, they will be eligible for a 60'x40' plot and cash compensation for the house that they lose. Their purchases, hence, tend to be restricted to small parcels of land -- generally less than 60'x40' or 0.06 acres -- that would serve for a house or a shop, but not for farming. If their house is expropriated, the urban plot they will receive in exchange is likely to be bigger than their purchase and several times higher in value. Both the landowner and purchaser benefit -- the former gets cash value for land without losing future compensation benefits from the expropriator, and the buyer gets use rights on land which if and when withdrawn will be replaced by an urban plot of greater value, with better services, and potentially in a better location.²⁹

A mechanical contractor, for example, bought a 60x35 (0.05 acres) plot along the main road in Kohroul village in October 1991, although no land sales are being registered. He did so because he can use it until the village is evacuated which he estimates will occur at least five years or, more likely, in about nine years. He has started construction on a house and, given its good location, intends to use a part of it to start some business. To offer another example, a migrant shopkeeper, purchased 0.03 acres in 1980, in Matwai village, which had been notified for acquisition by the power company, although he was aware that the village would be evacuated by 1984. The parcel he intended to purchase, for a shop, was priced at Rs. 4000. Given the booming market in Matwai, he figured "I could not only recover the costs but also make a handsome profit over the four year period. In addition, the power company would give us a plot (of size 0.06 acres, instead of the 0.03 acres that he had bought), cash compensation for the house, and move us in their trucks -- what more could we want."

²⁹ This is perceived to be a problem by the companies that are responsible for resettlement. They complain many of the people who are eligible for resettlement packages are illegitimate claimants.

Land prices in non-notified areas in the vicinity of the power and mining projects -- areas that are not as yet designated for acquisition but may be acquired in the future -- especially in the Waidhan plain of the Singrauli area, are extremely high. They have risen despite the threat of acquisition. This observation is surprising because it runs counter to expected market behavior -- the land prices should be declining, given the contentions of the oustees, and NGO leaders that the compensation offered by the companies in exchange for expropriated land is "inadequate" and does not make up for the losses borne by the displaced. Further, it directly contradicts observations in land and housing literature that lack of security of tenure implies low land prices, and also low investments in housing and agriculture. According to the people in Singrauli, land prices are high not only because of the relative scarcity created by the Rihand submergence, urbanization, and rapid expansion of coal mining, but also because, in anticipation of state acquisition, landowners are less willing to sell. Unlike the situation in notified areas described above, land owners would be required to transfer title to the buyer which would make them ineligible for compensation when acquisition does take place. That is, these landowners feel that by selling at current market rates they may be foregoing a better deal in the near future.

Further, land owners in these non-notified areas are more interested in subdividing their land among heirs, rather than in selling it. While some years ago few land owners in the area bothered to subdivide their property and legally transfer title to their heirs, this is now becoming increasingly common. By transferring titles to their adult sons landowners hope to make them, each, eligible for separate compensation. The sizes of subdivided lots tend to be based on eligibility criteria for compensatory plots and jobs -- land owners subdivide in ways which will make a maximum number of family members eligible for these benefits. For example, the families would tend to keep the subdivision to a minimum of one acre -- this size holding makes the owner eligible for a job, irrespective of which company (the coal company or the power company) expropriates the land. Also a land owner who owns, for instance, two acres of land and has four sons may not divide it

equally among the sons because although it would make all of them eligible for separate plots, it would render all of them ineligible for jobs if the land is expropriated by the power company. Meanwhile buyers are interested in purchasing parcels precisely because they want to become eligible for the compensatory package, and they are often interested in sizes that will make them eligible for jobs. That is, unlike in the notified areas where purchases tend to be a maximum of 0.055 acres (60x40), in the non-notified areas buyers are often interested in a size range of 0.5 acres to one acre depending on whether they expect the coal or the power company to expropriate this land.

In contrast to the notion that displacement only brings misery, then, for some land owners acquisition brings desirable benefits or positive externalities. The discussion also indicates that the much criticized compensatory package, which includes cash compensation, an urban serviced plot, and potentially a job, is of significant value. That the promised resettlement package has often fallen short of expectations and criticisms notwithstanding -- local people expect compensation rates to increase to reflect market rates more closely, the urban plot to appreciate in value and service provision to improve over time, and most potential oustees feel that the elusive permanent job will be theirs.

In sum, land prices have risen and sales occur despite the threat of expropriation. Land prices in the Singrauli area are high not only because of increasing urbanization, and because land is relatively fertile, but also because of impending acquisition -- that is, in anticipation of a promising resettlement package. Further, the price of land, and size of purchase depends not only on traditional market factors such as soil fertility, distance from the center, and density but also on whether the area is notified for acquisition or not, and whether people expect it to be acquired by the power company or the coal company. That is, the Singrauli area is characterized by a highly fragmented, speculative land market. In spite of these constraints and distortions in the land market, however, oustees have been able to purchase land -- an unforeseen outcome.

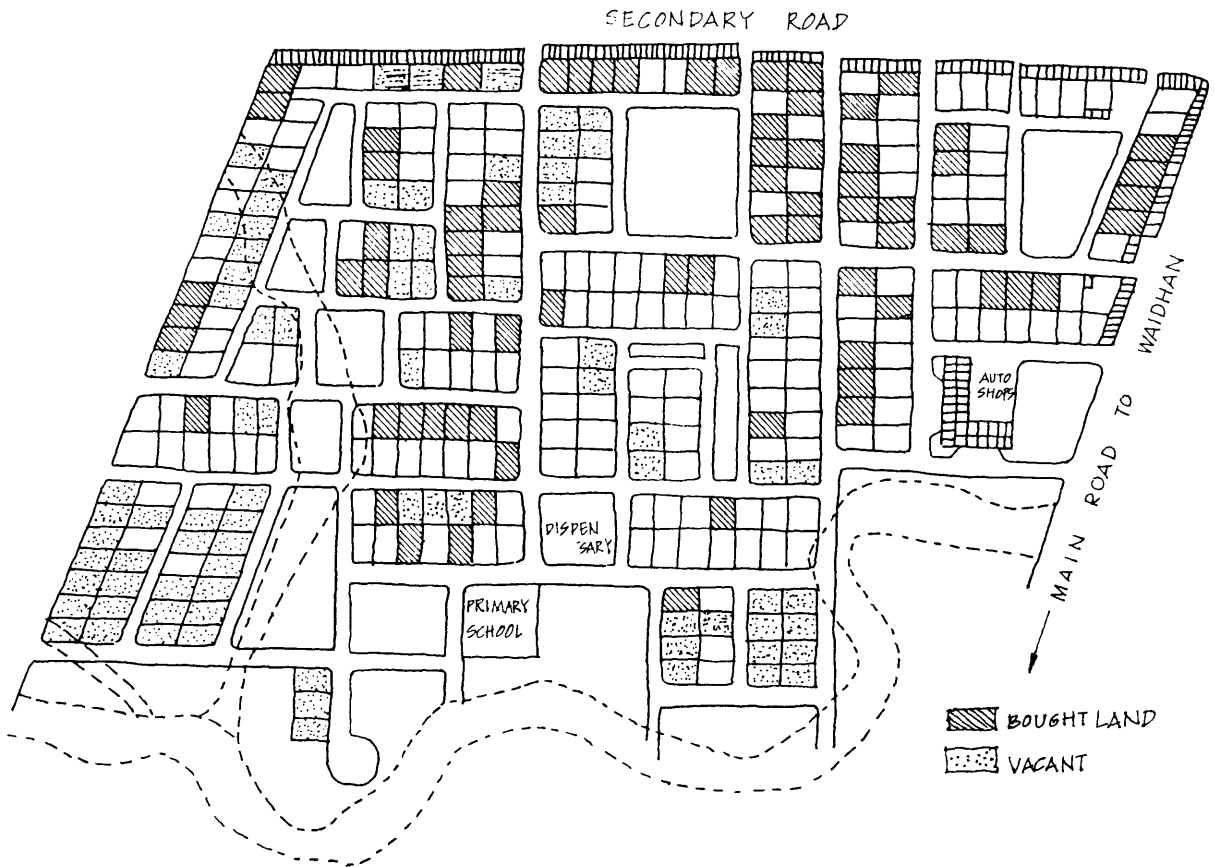


Figure 3. Oustees who purchased land in addition to the 60'x40' plots that they were allotted in Sector 1, Navjivan Vihar Resettlement Colony.

Purchase of additional land

That purchase of additional land is a common phenomenon or strategy adopted by oustees became especially clear in my study of the Navjivan Vihar resettlement colony. Even though they were allotted the standard 60'x40' plots in Navjivan Vihar, several of the oustees purchased additional land. In Sector 1 of the Navjivan Vihar, for example, which has a total of about 238 occupied plots, at least about 30% owned a parcel of land in addition to the 60'x40' plot (see Figure 3).^{30,31} Although this sector appears to have a greater proportion of higher, presumably richer, castes when compared to the other sectors, this phenomenon has not been restricted to the higher farmer castes or the rich.³² People from lower non-farming castes such as barbers and craftspersons have also invested in additional land; however, the proportion of these latter groups who have managed to buy land appears to be smaller as are the parcel sizes that they were able to purchase. While some owned additional land prior to acquisition, many purchased it at the time of displacement despite complaints that the cash compensation was extremely low. Ousteers have tended to buy this additional land either in an adjacent village that was not acquired, or in villages where they had relatives, or in some distant village where there was sufficient land for a whole group of them to move together.

The following factors helped them acquire land. First, social networks, that is, family and friends helped oustees identify appropriate parcels and to negotiate better prices. In many cases oustees purchased land from friends and relatives, whose land had not been acquired, at times at prices less than the actual market rates.³³ Second, although the

³⁰ Based on on-site mapping. SADA records indicate that of a total of 323 residential plots 288 plots have been allotted so far. I found that about 238 of the total number of plots in Sector 1 were occupied, and owners of 72 of these had purchased additional land.

³¹ The actual percentage of those who purchased additional land is likely to be higher. 30% is an extremely conservative estimate because: first, it does separately count, for example, brothers who bought additional land because there was no information on whether they held separate titles. Second, several people were reluctant to admit that they had purchased additional land. .

³² For caste structure see footnote # 15 in Chapter 2.

³³ Friends and relatives felt obliged to help and at times accepted rates that were lower than the alleged market rates.

compensation rates were less than the market values, they could use their compensation to buy some land, *albeit* in smaller parcels. That is, many of the oustees who purchased land had to and did settle for parcels that were smaller than their original holdings. Several of those who had very small holdings to begin with, for example two or three acres, opted to move further, often to villages 25-50 km away to be able to buy land of equivalent size. A few used their compensation to buy parcels that were bigger than their original holding but less fertile.

The following examples indicate some of the differences in purchasing strategies. Although they were allotted plots in Sector 3 of the Navjivan Vihar resettlement colony, 20-22 household displaced from Jainagar village bought about two acres of land each outside the Singrauli region (in Sarrai village). According to one purchaser, they bought land because farming was the only task they knew how to do. The land is fairly rocky but they figured that with hard work and each others help they would be able to bring it under cultivation.³⁴ In contrast, several of the families displaced from Matwai village adopted an opposite strategy -- many used their compensation money to buy a smaller piece of land in the adjacent (Juari) village, instead of buying two acres of land in some distant area. Because the land prices in this adjacent village were almost twice as high as the compensation paid, only a few, more affluent, land owners were able to buy 2-4 acres; most of the people ousted from Matwai bought about an acre of land or less, at times as little as one-tenth of an acre. Given that the urban plot is only 0.06 acres, even these small purchases accommodated a larger house, a kitchen garden and their livestock. Further, unlike in the urban resettlement colony, residing in the village meant that there were grazing

³⁴ Interview with a vegetable seller (1/92). While her husband lives on the farm in Sarrai, the vegetable seller and her son live on their plot in Sector 3, and the son goes to a school in the colony itself. The woman purchases vegetables in Waidhan market which is about six kilometers away, and sells it in the Navjivan Vihar market which largely caters to the permanent employees of the adjacent Vindhychal plant. She uses this income to support herself and her son and will continue to do so, at least until the farm is ready.

pastures for the livestock. In other words, oustee households identified different size parcels in different areas, to suit different priorities.

The Singrauli case suggests it might be useful to entrust the task of identifying replacement land to oustees themselves rather than to project agencies. Ousteers' success in purchasing additional land in Singrauli stands in direct contrast to the dismal record of project agencies in acquiring replacement land for resettlement of the displaced. Evaluations of resettlement projects show that project agencies have rarely managed to purchase and transfer land to oustees. For instance, although several projects in India have resettlement plans that include provision of replacement land, a World Bank report on resettlement (1988) notes that "with very few exceptions, no land has been provided."³⁵ Project and public agencies responsible for acquiring replacement land claim that surplus land is often unavailable. A Bank technical paper (Cernea 1988), however, contends that while the unavailability of land may sometimes be a real constraint, the more common reason why land transfers do not occur is that borrowing agencies are not able or willing to actively search for existing surplus lands for those displaced.³⁶ The paper, therefore, recommends that the expropriating agency be required to identify sites for new settlements and adjacent farming and grazing lands, in the project preparation stage; that is, in parallel to the preparation activities being undertaken for the project that is going to cause displacement. This task includes activities such as land capability studies and planning for site preparation, land reclamation work, and possible soil improvements. While mandating project agencies to acquire land up front may help reduce their "unwillingness" to search, it does not, however, resolve the problem in cases where agencies are not "able" to search for land. The Singrauli experience indicates that it may be better to hand over the task of

³⁵ World Bank (6/1988). India Resettlement -- Report of Departmental Working Group.

³⁶ The report lists the following reasons why land transfers do not occur: a) poor project planning, b) lack of effort to identify land reserves, c) lack of political will to use government authority for providing land that may legally be made available, or d) lack of imagination to design proper solutions. The argument here is that land transfers do not occur

finding land to oustees themselves, since they are likely to be both more willing and more able to identify land appropriate to their needs.

An alternative process for land transfer

The process used by oustees is in many ways opposite to the procedure usually adopted to affect land purchase and transfer. In this subsection I will contrast the approach used by oustees with the conventional procedure where land is purchased in “blocks,” usually by project agencies. I will draw on Tendler's (1991) work and strikingly similar findings in Northeast Brazil to corroborate my research.

One of the key reasons why oustees were able to find land in this area where land is extremely scarce is that they were looking for small parcels either for one family or a small group of families, and each group was looking for different sizes, soil fertility, and distance from the original settlement. This contrasts with the approach project agencies use, agencies are looking to find land to resettle hundreds of families, and this land is also required to be fertile and near the original settlement. In most projects where a land for land strategy has been used the tendency has been to acquire large blocks of land which are handed over to oustees at the time of displacement. This means of land transfer may be inappropriate for several reasons. One of the problems with this method is the scale and scope of the task. For example, most resettlement programs in India that provide for replacement land propose at least four acres of unirrigated land or two acres of irrigated land, for viable agricultural resettlement. If this rule of thumb were to be applied in Singrauli it would mean that an expropriator such as the Vindhyachal power plant which displaced 2300 families, needs to provide about 9200 acres of unirrigated land or 4600 acres of irrigated land. Vindhyachal is likely to object strongly, given that it acquired only 2054 acres from these people, and to claim that such a quantity of land is unavailable. In other words, the task of acquiring thousands of acres of good agricultural land is difficult and the likelihood of the expropriating companies failing to deliver is high. That is,

agencies may not be willing or able to identify surplus land for resettlement, because good agricultural land tends not to be easily available.³⁷

Another reason why acquisition of land in blocks by state or project agencies may be inappropriate is that there is a high possibility of collusion between the state officials and landowners which, in turn, may lead to land prices being set higher than actual values, and/or to acquisition of land that is not really desirable for farming (Tendler 1991). In directly purchasing land oustees were able to avoid these problems. In contrast to the higher rates or at best appropriate market rates that agencies are likely to pay, oustees were able to negotiate better prices which were at times lower than market rates -- a performance that agencies are unlikely to be able to match. In addition, several oustees actually chose to buy less fertile land either because they decided they could work harder to bring it under cultivation over a period of time, or because agriculture was not intended to be their primary source of income. That is, land that is not considered to be suitable for purchase by project agencies because it is not appropriate, for example, for agriculture may be suitable for certain oustees such as traders, wage-earners, or even livestock rearers. A process that decentralizes choice to the household level, then, offers the advantage of bringing into play land that agencies are likely to ignore, and at prices that agencies are unlikely to be able to match.

Further, large blocks of cheap land are often available only in remote or less settled regions (Tendler 1991). Both rural and urban relocation experiences indicate that resettlement projects have often tended to fail when they were located at a significant distance from the existing settlement, that is, in remote areas where access to services tends to be low. Indeed, the Rihand resettlement in this region suffered from a similar problem. Although people who lost their land in the 1961 submergence were given 3.5-7 acres of alternative land for farming few moved because of large distances (up to 150 km) and

³⁷ A Bank report (1988) on resettlement in India notes a case in which the state granted title to oustees on state owned forest land. However, this land was already being cultivated by other farmers who set fire to some huts belonging to the oustees, the new "owners."

because the remoteness of these areas meant no water, no roads, no schools, and no electricity. They moved only several years later, when these areas were more developed and better connected by roads. Similarly, the land settlement/ colonization literature notes that while remote areas are particularly appealing to planners for settlement projects because of the availability and cheapness of land there, this remoteness has also contributed significantly to the failure of these projects (Tendler 1991).³⁸

Oustees' success in purchasing additional land in Singrauli indicates that land-based strategies may work even in urban and urbanizing areas, that is, in markets conventionally assumed to preclude such a possibility. These observations are corroborated by Tendler's (1991) research which shows that some cases of successful land transfer took place at the edge of the "internal frontier" in already settled regions -- this challenges the customary view that increase in land values accompanying development and the intensification of land use make land-transfer actions less possible. Further, the experience in Singrauli also bears out Tendler's conclusion that: land markets work better for small farmers when they participate in the search for land and the setting of its price; that this decentralized approach keeps the state at an arm's length from the seller and introduces checks against collusion; and that opportunities for land transfer in more settled regions occur in patches rather than in blocks.

In sum, the Singrauli case suggests that a decentralized, disaggregated approach where beneficiaries play the key role in the process of land transfer has several advantages over the conventional method of large scale purchase or acquisition of replacement land by project agencies for beneficiaries. This process entrusts the task of identifying land and settling its price to beneficiaries who have the greatest vested interest in making it work. It decentralizes decision making to the household level -- a level where decisions that involve complex trade-offs between land fertility, size, price, and distance from the urban center are

³⁸ For land settlement literature, more generally, see Scudder (1981), Katzman (1977), and Nelson (1973).

best made.³⁹ And this process allows for innumerable options that can help overcome land availability constraints as well as cater to the diverse needs and priorities of the oustees better than centralized decisions about where oustees should move. Further, the Singrauli case suggests that it may be both desirable and possible to make land-for-land strategies work in urbanizing areas. While in Singrauli this process of land transfer has been an unforeseen outcome, there is no reason why policy should not aim to facilitate this process intentionally. Finally, to make the process work more broadly and especially for landless farmers state intervention may be crucial. The role that the state can play in facilitating this process is discussed in the concluding chapter.

THE ROLE OF LAND IN COPING STRATEGIES

The literature indicates that land is far less critical in urban resettlement than in rural resettlement. This is because the aim of providing land is often presumed to be to help the displaced restore their previous land-based/ agricultural incomes.⁴⁰ But the Singrauli experience shows that land has an important role to play in the coping strategies of the displaced even if it is not used for agricultural purposes. Purchase of small non-agricultural parcels, as we will see momentarily, has also helped increase income opportunities for oustees in Singrauli.

Most of those who purchased land near the urban area could only afford to buy enough for housing purposes, that is, to accommodate a house, a kitchen garden, and their

³⁹ A similar decentralized approach is currently being used in the Narmada Valley Resettlement project. The farmers are required to identify suitable land, local NGOs help them in negotiating prices, and a project committee approves and facilitates the purchase. About a 1000 farmers had been granted title by October 1990 (interview with William Partridge, The World Bank, 6/1991).

⁴⁰ This is evident from Electricite´ de France’s (EdF) analysis of the situation in Singrauli. The EdF study (1991) argues that given the changing aspirations of the younger generation, their disinterest in agriculture, and preference for jobs, adopting a land-for-land strategy may be inappropriate since it would imply “going against the trend (because the younger oustees do not want to do agriculture).” The notion here is that if the likelihood of displaced farmers continuing with farming is low, there is little to justify provision of replacement land since it will not serve the purpose of economic rehabilitation, that is, of providing a sustainable source of income.

livestock. A few of the more affluent farmers were able to purchase about two acres of land which allowed them to grow maize and vegetables for the market. The farmers who opted for a marginal holding in the area, as opposed to a larger holding further away, did so because of the higher priority that they placed on amenities and services such as schools, health clinics, water, and electricity, and because it allowed them the option of additional income from an urban job. But to understand how additional land including non-agricultural parcels helped increase economic options, it is important to examine the role of the 60'x40' plots in resettlement colonies.

The “combination strategy” -- urban plots and peripheral land

The literature suggests that in the case of urban and peri-urban relocation projects it is better to provide oustees with plots near the urban center as opposed to larger plots in the urban periphery. The underlying argument is that by virtue of their location urban plots provide better employment opportunities. For the oustees this is a housing versus employment trade-off and they prefer employment, while planners, given the relative ease of acquiring land in the urban periphery and their obsession with housing standards, tend to prefer the former. The EdF study notes, however, that in Singrauli the strategy of providing plots in urban resettlement colonies near the center has not worked. These colonies have a high vacancy rate and a high proportion of the houses are rented or sublet. EdF argues that the resettlement colonies have failed to offer a tolerable living environment for the displaced. Do the high vacancy rates, and the phenomenon of renting out in resettlement colonies, and my observation that oustees purchased land in the urban periphery, indicate that urban plots are not always preferred and/ or that providing urban plots may be the wrong approach? I will argue that high vacancy rates and renting out do not necessarily indicate failure. More importantly, I will argue that casting the issue as a choice between urban plots or peripheral land may not be useful.

The high vacancy rates and renting out do not necessarily mean that the living environment is intolerable, nor do they inevitably indicate “failure” of a resettlement colony. Several factors can help explain vacancies or unbuilt plots in the Navjivan Vihar resettlement colony. First, some of the empty plots belong to people who have not needed to move from their original village either because all of their land was not acquired or because the company does not need to use the land immediately. In Shahpur village, for example, where the land has been acquired for construction of ash dikes, only 40 of the 290 families are required to evacuate immediately. To offer another example, some families, especially those near the border of village Judi and village Chandawal, owned land in both villages; when village Judi was acquired by NTPC they simply moved their houses to Chandawal. A second factor that helps explain vacancy is that some oustees spent their compensation money or invested it, for instance, in an additional parcel of land. They, hence, did not have sufficient finances to construct a new house in the colony immediately, and opted to stay in cheaper houses/ huts elsewhere, but this does not preclude the possibility of their constructing a house later. Finally, joint families that were allotted more than one plot of land, either because the sons held separate title or because the family was larger than eight people, often began with constructing only on one plot.

The observation that a large proportion of the houses are rented also does not necessarily indicate failure. Given the relatively high rents in the better located resettlement colonies, renting a portion of the unit or even the entire house makes good commercial sense. Renting out serves to supplement income and at times may even be the only source of income for a family, for instance, for older displaced persons who are unable to do casual work or to continue farming.⁴¹

Renting out or keeping the allotted lot vacant, then, does not necessarily mean that a plot in a resettlement colony is inappropriate or that it is not of value to oustees. The

⁴¹ The Rihand Resettlement I colony has about 76 tenant families; the total number of plots is 473.

vacancy may be temporary and renting may be an important source of additional income. Further, as the literature notes, by virtue of its urban location the plot offers improved access to employment opportunities, urban services, and a more viable location for shops and other businesses -- the plot is not only valuable for renting, but it has also allowed some oustees to start a small shop or business, enabled others to link into a variety of casual job opportunities, and yet others, such as those with permanent jobs, to reside in close proximity to their work sites. Despite their complaints about the lack of adequate services, the oustees admit that they consider their plot to be valuable not only because it is the only asset that they received in exchange for their entire holding, but also because it is an asset of increasing economic value, even though the current tenure status -- a 30 year lease⁴² -- does not permit them to sell their plots, they can realize that value on an ongoing basis through increasing rents, growing sales/ business, and improving employment opportunities as the area develops.

But these 60'x40' urban plots are particularly valuable because oustees have been able to use them in combination with the additional land that they owned or purchased to increase their options. This combination has served the needs of the oustees best and has been critical to the more successful coping strategies; it has allowed the oustees a greater variety of social and economic options. Ousteers who bought a small parcel of additional land in the vicinity tend to sublet the house in the resettlement colony for a good income. The small additional parcel not only suffices for a home and a place for their livestock, it also accommodates a kitchen garden which, at the very least, suffices for home consumption. Further, its proximity to the urban center implies both a market for any surplus produce, and proximity to urban jobs. Those that own additional land farther away have larger lots and tend to pursue agriculture. They supplement their agricultural income either with rental incomes in the urban area, or by letting a member of the family inhabit

⁴² According to an interviewee, the power company's Singrauli power plant granted ownership (instead of a lease) to the oustees that it resettled in Chilkadand and Paraswaraja resettlement colonies. It may be useful for any up study to ascertain why this difference exists.

this house and work in town. Family members who prefer farming and a “village life” have the option of staying farther away, while the younger members with job or business aspirations can reside in the resettlement colony. The archetypal, much critiqued physical resettlement strategy of providing house plots in resettlement colonies, then, has played a key role in diversifying the economic options available to oustees.

In sum, the economic use of land has not been limited to agriculture income; it has been used to generate rents, to start a business, and to serve as a base from which to link into a variety of self-employment and job opportunities. More commonly the purchase of land, in addition to the 60’x40’ plots, has facilitated some combination of the above possibilities. In essence, land figures predominantly in a variety of coping strategies -- it enables displaced households to establish a diversified income portfolio. The Singrauli case, then, suggests that in dichotomizing resettlement strategies into urban vs. rural, jobs vs. agriculture, physical vs. economic, urban plots vs. peripheral land, resettlement policies may be missing crucial linkages between them. Further, they may be overlooking the spectrum of possibilities between these apparent polarities, that is, a range of options that may be necessary to achieve successful resettlement and rehabilitation.

IV. THE EMPLOYMENT QUESTION

The people of Singrauli complain bitterly about the lack of employment opportunities in the region. They assert that the industrial development in the area has not created sufficient jobs. According to Central Government officials in New Delhi, this is not particularly surprising, given that Singrauli's development has been led by capital intensive, high technology power plants and open-pit coal mines -- such industries tend not to be employment generating, and these investments are not likely to promote local economic development either, since their backward and forward linkages are not locally based. Hence, Singrauli's coal mines and power plants cannot be expected to create many indigenous jobs or stimulate rich economic growth.

I will argue, however, that it is the government's energy sector policies and "efficiency" concerns of donor agencies that have determined the amount and nature of employment opportunities in Singrauli's economy. This argument falls in line with contentions that have been made before but tend to be overlooked -- technology is not inherently labor saving or displacing, rather it is the intermediating institutions and policies that determine the outcome (see for instance Carl Gotsch 1972, 1977). In this chapter I will, first, discuss the Government's strategy of "linking" coal production to power plants, where the coal mined must be supplied to power plants, and the effect that this policy has had on Singrauli's economy. This policy has created conditions that justify increasing capitalization and centralization. Second, I will examine the policy of reserving permanent unskilled jobs in the power and coal companies for oustees. I will take a closer look at the jobs created by the power plants and show that to reduce operating costs and "improve" efficiency the plants have reduced their permanent employees by hiring casual workers through labor contractors; this has reduced the permanent jobs usually reserved for oustees. While the policy of linking coal to power has reduced the number of jobs in the economy,

power plant policies have adversely affected the quality of jobs available. Both of these policies have undermined the opportunities available to oustees. These energy sector policies, hence, run counter to resettlement policies aiming to provide employment opportunities.

LINKING COAL TO POWER -- CASE I

Since the Government of India nationalized power generation in 1973, every thermal power station is “linked” to a coal mine -- that is, the coal mine must supply an established percentage of its coal output to the power plant. This reflects the Government’s concern for managing its energy sector in a planned way and for increasing electricity production in the country. In Singrauli, this policy came into effect in 1980 as newly constructed thermal power plants were about to commence operations in the area. According to local people and shopkeepers, when this policy came into effect their job and business opportunities declined. In this section I will examine ways in which the policy of linking coal production to power plants may have adversely affected opportunities for local people. Since there is little region-wide data to test these claims, I will rely on interviews with local people, coal contractors, coal company officials, and World Bank’s power and coal sector experts to estimate the local impacts of this policy.

Increasing investments and a slowing economy -- an apparent paradox

The local people, and shopkeepers note that compared to the booming economy of the late 1970s and early 1980s, Singrauli’s economy is currently extremely slow. This is surprising because in the intervening years both the Central and State Governments have invested heavily in the area -- the number of thermal power plants has increased from one to five, and the number of mines in operation has risen from three to nine. That the scale of investments in these power and coal projects has been massive is evident from the fact that

partial funding for three projects has involved loans totaling US\$ 850 million from the World Bank alone.⁴³ The coal company has individually invested US\$ 3 billion, since 1985.⁴⁴ According to the local people and shopkeepers, however, not only have increasing capital investments had little stimulating effect on the local economy, the economy has actually slowed down despite these investments. While there is little evidence to support these larger claims and although it is unlikely that the economy slowed down, the complaints of the local people indicate, at the very least, that their job opportunities and businesses declined over this period.⁴⁵

While there are several factors that may help explain this perception that opportunities declined,⁴⁶ the local people indicate a specific landmark event as the turning point -- on April 11, 1980⁴⁷ the government stopped "free sale" of coal in the area. Local people argue that it is this change that served a critical blow to their small but booming businesses and significantly reduced the number of casual jobs available. The change referred to here is the government's decision to switch from "free" or unrestricted sale of coal to private or public consumers, to a policy of linking coal production to thermal power plants in the area. Currently 98% of the coal produced in the area must be supplied to power plants; 90% of the total production is supplied to power plants in the area.^{48,49} Most of the coal output now goes from the public-sector coal company to public-sector power companies, and the electricity generated is mostly transmitted to other states and regions.

⁴³ Gulyani (1991). Report for Urban Development Division of The World Bank.

⁴⁴ This figure is not adjusted to real values, and is computed @ Rs. 25 per US Dollar. The Rupee value of investments has been obtained from NCL's Performance At A Glance report (1992). The US\$ 3 billion figure includes a US\$ 151 million loan from the World Bank in 1985.

⁴⁵ Since the Singrauli region straddles the state border between MP and UP, and covers several districts there is little region-specific data which can be used to corroborate these perceptions.

⁴⁶ According to a migrant shopkeeper this perception can be explained, in part, by the fact that in the late seventies there were monopoly profits to be made; increasing entry and consequent competition have helped reduce profit margins.

⁴⁷ Interview (1/1992).

⁴⁸ Northern Coalfield Limited (1992). Performance At A Glance report.

⁴⁹ The 90% is linked to pithead giant power plants of NTPC, Uttar Pradesh State Electricity Board, Renuagar Power Company, and Hindalco (a privately owned aluminum factory).

“Free sale” meant that coal was sold to all “genuine consumers” -- these included brick kilns and other small industries of which some were local, but most were located outside Singrauli.⁵⁰ The coal company hired several contractors and transporters for processing, dispatching, or supplying coal to a variety of consumers. The contractors, in turn, hired casual workers to manually crush, dress (the process of removing stones and garbage from the coal), and sort coal by size. The workers then loaded the coal, usually onto trucks, to be transported either directly to the consumers, or to coal stockyards which were operated by the coal company to satisfy the needs of small consumers such as owners of brick kilns.

The switch from “free sale” to 98% linkage to power plants reflects the Central Government’s emphasis on managing the sector in a planned way,⁵¹ and on expanding thermal power generation in the country. Given the acute power shortages in India during the 1970s and the adverse impact they had on the productive sectors of the economy, the Government decided to increase thermal power production.⁵² To affect the required increase in thermal power, the Government has expanded production of thermal coal by developing large-scale open-pit mines.⁵³ Further, in response to studies⁵⁴ that highlighted the importance of reducing haulage distance, and transportation bottlenecks for coal, the Government decided to locate coal mines and power plants in proximity to each other and to opt for efficient modes of transportation, such as the merry-go-round (MGR) rail track

⁵⁰ Interview with a large coal contracting firm in Singrauli (1/1992).

⁵¹ Interview with a World Bank coal-sector expert (5/1992).

⁵² WB (11/1990).

⁵³ According to a World Bank report, this strategy is justified because: i) it leads to lower cost options for feeding thermal-power plants with indigenous resources; ii) it enables the rapid expansion of electricity supplies at low cost; iii) it allows the diversification of technologies used in coal mining; iv) it increases productivity of operations in the coal sector.

⁵⁴ As indicated in WB (2/1984), these reports include India Coal Sector Report (1982), and Working Group on Energy Policy report (1979).

system⁵⁵ as opposed to trucks. In fact, the government now establishes linkages of coal mines to main consumers so as to minimize the transportation involved.⁵⁶

With the switch from free-sale, the coal company's marketing tasks are now relatively easier. Since supply allocations, linkages, and pricing are administered by the Government,⁵⁷ the main marketing functions undertaken by the coal producers relate to booking of orders, dispatch of coal, invoice for orders, receipt of payment, monitoring coal quality, and ensuring the satisfaction of grade and delivery specifications. With the tying of coal to power plants, these tasks are simplified or even eliminated. Further, coal companies also operate coal stockyards to satisfy the needs of small consumers; in Singrauli the need for operating these stockyards is also eliminated. For the coal company, one disadvantage of supplying all its coal to public sector power plants is that cost recovery from these power companies is less certain and regular than from private consumers. The coal company's performance report (1992) notes "reluctance on the part of the major consumer in the government power sector in releasing huge outstandings." A World Bank report (1984) helps explain this -- the report notes that NTPC, which is a central government power company, often delayed or defaulted on payments for the coal because it, in turn, did not receive payments for electricity supplied to the state electricity boards, which were poor on collection from consumers.

In addition to its intended impacts on the coal company and cost of power, this linkage policy has had unintended impacts on the local economy. The switch from "free sale" to 98% linkage has diminished the employment and business opportunities associated

⁵⁵ The Merry-Go-Round is a closed loop railway track on which coal wagons can move continuously -- the wagons which are loaded at the "wharf wall" move to the power plant where they are automatically unloaded, and the empty wagons loop back to the wharf wall.

⁵⁶ WB (2/1984).

⁵⁷ The supply allocation and marketing of coal in India takes place within a set of formalized procedures whereby supply allocations and long-term linkages are administered by Government of India rather than by the producers. Supplies are allocated by the Standing Linkage Committee from available resources based on least-cost criteria taking into account available transportation facilities. The Planning Commission scrutinizes and reviews the coal sector production and investment program and sanctions linkages between new mines and major consumers (WB 2/1984).

Table 1: Mode of Coal Transportation

(in 100,000 tones)

Period	Rail	MGR	Ropeway	Road	Total
1985-86	55.32	37.30	9.98	11.62	114.22
1990-91	114.15	132.34	19.60	7.22	272.31
1991-92 (till Dec. 91)	84.90	111.05	15.18	5.59	216.72

Source: NCL. 1992. "Modewise Despatches," Performance At A Glance Report.

Table 2: Annual Performance Data of NTPC Stations for 1990-91 (Gross)

Particulars	Singrauli SSTPS	Vindhyachal VSTPP	Rihand RhSTPP	NTPC (Total for seven plants)
Generation (MU)	12341.14	4465.02	3595.52	42981.60
Loss of Generation due to Grid (MU)	2167.75	945.04	1463.65	6556.80
Loss of Generation due to Coal (MU)	NIL	NIL	NIL	4413.53

Source: NTPC. 1992. "Annual Performance Data of NTPC Stations for 1990-91 (Gross);" Table IV.

with processing and transporting coal from the mines to industries outside the area, and to local power plants. The switch from “free sale” to 98% linkage has been analogous to the replacement of a web of small intermediary companies and a diversity of consumer firms, by a few large intermediary firms and a mega consumer. That is, a multitude of coal contractors, transporters, and other intermediaries have been replaced by a few large loading contractors -- usually one or two per coal mine -- who transport coal from the stockyard to the “wharf wall” where coal wagons are loaded for delivery to the power plant.⁵⁸ In contrast to smaller contractors who relied on labor for most loading and transporting tasks, the big contractors can afford to deploy several “payloader” machines, “dumpers” and “tippers” and to use less labor.

Further, coal is now increasingly dispatched via the MGR rail track system, ropeways, and railways as opposed to by road. For instance, as the total amount of coal dispatched by the coal company increased by 138% from 1985/86 to 1990/91, coal dispatch via the MGR system increased 250%, while the amount of coal dispatched by road decreased by 38% (Table 1). As more efficient systems such as the MGR replace trucks the direct and indirect demand for unskilled labor has been declining. The following examples hint at the nature and scale of changes associated with the mechanization of coal loading and transportation. One study estimated that a truck of coal is associated with 18 jobs, including the driver, co-driver, helper, labor to load and unload, mechanics and jobs in associated service shops.⁵⁹ A World Bank report (1984) notes that Central Coalfield Limited -- which included the Singrauli coalfields until 1985 when Northern Coalfields Limited was established -- had a high productivity and that one of the factors that helped was the company’s success in cutting its labor force. The report notes that the company “encouraged over 3000 female workers to take voluntary retirement following mechanization of coal loading and transporting arrangements.”

⁵⁸ The coal is sorted at the stockyard, loaded by “payloaders” onto “tippers”, and taken to the “wharf wall” or “siding” where it is again sorted and then loaded onto coal wagons.

⁵⁹ Interview with General Manager, Bina Coal Mine (1/1992).

The tying of production to a single consumer means that instead of catering to the several different size and grade specifications of a variety of different consumer industries, the coal company has to deal largely with only one set of specifications. The power plants require the coal to be within a given size and grade range -- the sorting is less elaborate and less labor intensive, and is also easily mechanized. In fact, the few large coal loading contractors, who had replaced several smaller contractors, can now be replaced by capital-intensive, automated, Coal Handling Plants (CHPs) -- coal is transported to a CHP by conveyor belts and the CHP automates the loading of coal wagons that line up below it. CHPs load coal wagons faster than the “dumper” machines deployed by the coal contractors, and these plants can also do some sizing and quality sampling tasks; according to a World Bank coal sector expert the efficiency gains are tremendous.

The efficiency gains from installing CHPs to replace contractors in Singrauli, however, are unclear, especially if local power plants are to remain the primary customers of the coal mines. The power company’s 1991 figures indicate, for example, that “generation loss due to coal” in the three Singrauli power plants was zero (see Table 2). That is, according to the power company’s figures, coal supply was not a constraint to power generation; this appears to indicate that the current system of deploying large contractor firms not only works but works well and is efficient enough. And for the small shopkeepers and casual workers, the several proposed CHPs, three of which are under construction, will diminish the already reduced but not insignificant number of skilled, unskilled, and semi-skilled jobs with the large coal contractors. Given the unclear efficiency gains and significant job-displacement effect, policy makers should question the validity of investing roughly US \$ 30 million on each CHP.^{60,61}

⁶⁰ The Dudhichua Coal Handling Plant that the World Bank is funding, will cost US\$ 30 million; cost of other CHPs varies as per capacity (interview with WB coal-sector expert 5/1992).

⁶¹ Currently, one CHP is in operation in Singrauli, and most other mines are likely to install their own. A CHP can handle about 40,000 tons of coal per day; in comparison, for example, one of the larger contracting firms in the area handles about 20,000 tons per day. The firm employs about 250 employees including administrative staff, and skilled and semi-skilled workers, and it hires about 250 unskilled casual workers through labor contractors called “mates.” A back-of-the-envelope calculation shows that a CHP

This switch to one consumer, then, has allowed for the replacement of several contractors with a few loading contractors and, subsequently, to substitution of these contractors by CHPs. In addition, it has facilitated a switch to transportation modes, such as MGR rail track systems, that are more efficient but have fewer backward linkages to the local economy. In essence, the tying of coal to power plants has simplified processing, loading, and transportation tasks, and introduced economies of scale that justify increasing investment in capital-intensive machinery that displaces labor-intensive processes and has fewer local linkages. Further, it has resulted in the elimination of certain tasks; while this, as discussed earlier, may have benefited the coal company, it has adversely affected employment opportunities. For instance, in eliminating the need of operating coal stockyards for smaller consumers, it has eliminated several managerial, supervisory, and janitorial jobs, as well as the jobs associated with the task of transporting coal to these stockyards.

With the elimination of smaller contractors and of some intermediary tasks, the number of firms and the number of casual workers in the industry have declined. The latter is reflected in the outflux of out-of-state migrant labor that had come into the area in the late 1970s to capitalize on the substantial casual work opportunities in coal processing, and transportation. Further, economic activity is now concentrated among a few large contractor firms that are based in cities outside the region and tend to take their profits outside Singrauli.⁶² The declining migrant labor population and fewer intermediary contracting firms also mean that a lesser proportion of the income generated in the area is

would replace two such firms, several mates, and a total of about 1000 permanent and casual jobs in the private sector, with substantially fewer permanent jobs in NCL.

⁶² Most of the large firms have their head office/ base outside Singrauli and tend not to invest in the area. The EdF study 1991 also makes this point. The large firms have few investment and consumption options in the Singrauli area; there is little "upper-end" private housing or commercial development in the area -- most of the housing and commercial complexes are developed by the firms for their employees and contractors. For example, the employees of the contractor firms live in units provided by the coal and power companies, there is little serviced land for them to build houses on. And currently there are few recreation facilities in the area that the elite employees of the public-sector companies and contracting firms can spend on.

spent in the area; this has adversely affected other local businesses. Several people in Kohroul village, for instance, owned restaurants that did lucrative business due to the large number of laborers employed in coal stockyards, and numerous truck drivers and helpers. For many of these small street-side “eating joints” business started declining in 1980, with the banning of “free sale” of coal. Many eventually closed shop by 1985, that is, soon after most major construction projects in the area were completed.

Finally, because coal is not available on the free-market there is now a “black” or illegal market for coal in Singrauli. Initially local people relied on firewood for their fuel needs, but due to the declining availability of firewood, use of coal is increasing. Local people now use both firewood and coal for cooking, and they obtain the coal at higher black market rates. Similarly small coal-based industries such as brick kilns also have to rely on the black market for their coal supplies which raises their production costs and may reduce the number of jobs in these local industries.

In sum, a revoking of the “free sale” policy and the tying of coal production to power plants has helped make the marketing task of the coal company easier, has made transportation more efficient, and has helped the power plants keep cost of production down. It has also created incentives and opportunities for several big coal-loading contractors and transporters to move into the area. But it has had several unintended and unforeseen impacts on the local economy. First, it has reduced the direct employment opportunities in coal processing, and loading. Some government officials argue that it is better to mechanize coal processing because these are poor quality jobs that adversely effect the health of the workers -- coal dust generated during crushing, for example, causes lung diseases. While it is true that these jobs may adversely affect worker-health, it is probably not advisable to wipe out such jobs by mechanizing, given that there are few alternative employment opportunities for these laborers. Second, the policy switch has also created

conditions that have led to a concentration of economic activity among a few large firms that are not based in Singrauli and tend not to reinvest their profits in the area.⁶³

Third, the service industry, small restaurants, and retail shops in the area have been adversely affected by the decline in number of laborers and petty contractors deployed in the processing and transportation of coal. Local repair and maintenance shops have also been adversely affected by the switch to more efficient and non-divisible technologies, for example, from truck transportation to the merry-go-round rail track system. Finally, both local people and small-scale local industries such as brick kilns need to rely on the black market for their coal requirements. In effect, the policy switch to complete linkage of coal production to power plants has altered the structure of the economy and has not only displaced labor, but has also reduced opportunities for entrepreneurship in the area. It has diminished the few local multiplier effects that the coal industry potentially offered.

The direct and indirect employment and entrepreneurship opportunities generated by these coal companies are likely to diminish even further, as more Coal Handling Plants commence operation. These Coal Handling Plants, one of which is being funded by the World Bank, will directly displace labor as well as some of the smaller loading equipment which is labor operated and to some extent locally serviced. It is imperative to reassess the actual efficiency gains that these CHPs will affect in Singrauli. It is also critical to ascertain ways in which these efficiency gains can be achieved without adversely effecting the local economy -- that is, ways in which increasing investments in the area do not wipe out employment opportunities for the local people, small shopkeepers, and oustees.

⁶³ It can also be argued that concentration of activity among fewer firms has reduced the competitive environment, an outcome that should be of concern to those interested in improving efficiency. A WB power-sector expert notes (interview 5/1992) that often these large contractor firms emerge as monopolies and adversely affect plants and coal mines. He notes, however, that the risk of this occurring in Singrauli is low because there are several mines and plants that hire different contracting firms, and this ensures some competition.

LINKING UNSKILLED JOBS TO EXPROPRIATED LAND -- CASE II

All permanent unskilled jobs in the coal and power company have been reserved for people whose land is expropriated by these companies. The companies have adopted this strategy to facilitate the economic rehabilitation of the displaced because they do not consider it possible to provide land in exchange for the land that they expropriate; high prices and increasing intensification of land use in this urbanizing area are assumed to preclude the land-for-land option (see Chapter 3). Because the number of permanent unskilled jobs available in these coal mines and power plants is low, this rule has not ensured alternative employment to all oustees.

The coal company has done relatively better in providing permanent jobs for its oustees than the power company -- it has both hired a greater number of oustees in permanent positions, and has hired a greater proportion of the people that it displaced. In this section I will, first, look more closely into the power company's inferior performance in providing permanent jobs to oustees, and arguments offered by the power company to explain this performance. I will, then, discuss the job opportunities that the power companies have created and their relative merits and de-merits. Finally, I will discuss the potential of training programs aimed at increasing employment opportunities for the displaced. In the previous section I analyzed the local impact of policies aiming to improve efficiency at the sector-level, in this section I will focus on the impact of policies aiming to improve plant-level efficiency, on the nature of jobs available to both oustees and locals.

Permanent unskilled jobs in the coal and power company

The employment problem in the Singrauli area is, in part, due to the fact that the industries have created fewer jobs than they have displaced in agriculture (EdF 1991), by expropriating agricultural land. The situation has been exacerbated by an influx of migrants who have been relatively more successful in competing for both casual and permanent

jobs.⁶⁴ Further, the aspirations of the local people have changed -- the younger generation prefers urban-industrial jobs to farm labor and to the insecurities associated with rain-fed agriculture. As a result the demand for permanent jobs has increased manifold as compared, for example, to 1975 when the coal company had to struggle to find employees. Permanent jobs with the power and coal companies are now clearly the most coveted employment since they offer security, good salaries and generous benefits. Given their lack of formal education and training, most local people are eligible only for unskilled jobs in these firms. But all unskilled jobs in the coal mines and power plants have been reserved solely for oustees.

The policy of reserving unskilled jobs in the coal mines and power plants has not helped all oustees get jobs. The reservation rule has worked better for families displaced by the nine mining projects of the coal company as compared to those ousted by the three power plants (namely Singrauli, Vindhyachal, and Rihand) owned by NTPC, the power company. While the employment opportunities in coal processing and transportation have been declining, as discussed in the previous section, the total number of jobs in coal production has increased. On the one hand, increasing capitalization of processing and transportation -- tasks that the coal company subcontracts -- have diminished the indirect and direct employment opportunities that the coal industry potentially offered for the local economy. On the other hand, sheer increase in volume of coal production or mining -- a task that the company does entirely in-house -- has meant that the number of permanent jobs with the coal company have increased. The total number of permanent employees of the coal company has grown 53.5% -- from 9,793 in 1985-86, to 15,034 in 1990-91.

⁶⁴ Migrants -- Based on a sample of 1675 households, EdF (1991) estimates a third of the population in the area to be migrants. The migrants in the area include unskilled or less skilled workers engaged in daily wage labor; migrant shopkeepers, business owners, and contractors who tend to have some education, sufficient capital and substantial business experience; and, finally, highly educated and qualified, "elite outsiders" who usually occupy executive positions in the coal and power companies. All of these "outsiders" have tended to fare relatively better than locals in competing for casual work -- because they are relatively exploitable, for permanent jobs -- because of higher education and training, and in setting up businesses -- given their experience and capital.

In fact, because of expansion and the need for labor, the coal company (NCL) has been lowering its eligibility criteria for a job in exchange for land expropriated; this has allowed a substantially greater number of oustees to benefit. NCL started with the rule that it would offer one job, from the reserved category, to every family that lost three or more acres of land -- this was downward revised to 2.0 acres, then to 1.5 acres, to 1.0 acres and so on; NCL now offers a job to one member of every family that loses a minimum of 0.5 acres of land (0.02 acres for a family that belongs to a scheduled caste or tribe). In contrast, the power company has not been able to deliver even on its more stringent rule of offering jobs only to those that lose between 1-5 acres of land. This is because in the power plants the number of permanent unskilled jobs available to the oustees is very small in proportion to the number of oustees. For example, Vindhyaachal power plant, which has displaced about 2,300 families,⁶⁵ has a total employment of 1,947 of which only 232 fall into the unskilled category. The proportion of oustees hired by the power plant to total families displaced is 1:10.⁶⁶ In contrast, the proportion for the coal company, including six projects, is about 1:1; it has displaced 2,892 families and hired 3,150 oustees.⁶⁷

The power company's officials argue that the coal company can hire more oustees because coal is intrinsically more labor-intensive -- coal needs to be crushed and sorted, and also loaded for transportation; power transmission does not require labor. This argument does not hold up to scrutiny. The labor-intensive crushing, dressing, and transporting of coal are tasks that are contracted out -- these jobs do not count towards the coal company's employment figures. In other words, the 1:1 vs. 1:10 proportion cannot

⁶⁵ The figure of 2300 families is based on a questionable definition of "family." Those sharing a kitchen are considered to be one family even if it includes four major sons and their families. Ousteers have often objected to this definition/ criterion for defining a family, and have argued that it leads to underestimation.

⁶⁶ The figures for the Singrauli power plant (SSTPS) are somewhat ambiguous. According to information provided to us by SSTPS, the number of affected families is 1457; no. of displaced families is 666. 400 land-oustees were given jobs, 22 were allotted shops, 8 were awarded contracts for 1991-92.

⁶⁷ The three projects not included in NCL's figures are Jhingurda, Gorbi, and Bina. For the remaining six projects the project-wise displacements, that is, number of families displaced by a given project are: Jayant - 200; Dudhichua - 326; Amlohri - 160; Nigahi - 953; Khadia - 773; Kakri - 451. Source NCL memorandum: "Projectwise Status of Land Acquisition."

be explained by arguing that coal processing is labor-intensive and that power “processing” or transmission is not, because these numbers are not included in the computation of the given proportions. Why do these power plants hire a significantly lower proportion of the people that they displace⁶⁸ as compared to the coal mines? Is coal production (mining) more labor-intensive than power production (generation)? The power company contends, first, that power generation is a high-technology operation and has very few unskilled and semi-skilled jobs to offer -- fewer, for example, than the coal company. Second, the locals and oustees do not have the skills required to handle the more technical jobs, and they do not have managerial and technical qualifications that these high technology operations require. On the basis of these arguments, they contend that they are neither responsible for nor capable of providing jobs to all families that they displace. I will argue that these assertions do not hold up to scrutiny either.

The power plants require and employ more labor, especially unskilled workers, than is evident from their permanent payroll. They contract out several of the less-skilled tasks on a regular basis. For example, the Rihand power plant which has a total employment of 1,099, hired 1,587 and 1,452 casual workers in November and December 1991, respectively. Similarly, Vindhychal power plant, which has 1,947 employees, hired 2,648 casual laborers through 71 labor contractors in November 1991, and another 2,648 workers through 72 contractors in December 1991.⁶⁹ That is, in each of those months the number of casual workers hired by the Vindhychal plant was 1.4 times its total number of employees, and 11 times its total of 232 permanent unskilled employees.

The labor contractors supply the required labor at minimum wage and for a small profit margin.⁷⁰ This process of hiring temporary labor through labor contractors works

⁶⁸ Because all unskilled jobs are reserved for oustees, and because few of them are hired as “technical” or semi-skilled labor, the number of oustees hired is almost directly proportional to the number of unskilled jobs available.

⁶⁹ NTPC (1992). “Status of Contract Labor (Perennial Jobs),” Human Resource Information Report.

⁷⁰ My interviews indicate that contractors tend to quote at 5%-10% over the minimum wage to include profits and cleaning supplies such as brooms, bins etc. These profit margins are also meant to include some benefits such as insurance for the workers. The contractors argue, however, that increasing

extremely well for unskilled tasks such as gardening, maintenance of facilities, and cleaning/ janitorial work in the plant and office complex. And this process also works well for relatively more specialized tasks such as those in operations. The work tends to be supervised by the power company's staff but the requirement for supervision is low beyond the initial stages; the labor gets familiarized with the tasks, and any new labor gets trained and supervised by the more experienced workers. The Singrauli power plant, for instance, deploys about 56 casual workers, supplied by labor contractors, to support 70 staff workers per shift.⁷¹ According to the operations engineers, the plant cannot operate without these casual laborers. They also note that although the specific labor contractor for the task may change, the workers tend to remain the same since they have already acquired the necessary skills. Hence, in one day, which includes three shifts, 44% of the technically sophisticated tasks in plant operations (i.e., of power generation vs less-skilled tasks such as maintenance of conveyor belts, and vs unskilled tasks such as janitorial work) is handled by "unskilled" casual labor. This directly undermines the argument, put forth by the power company and endorsed by the World Bank's energy department, that the power plant cannot employ many locals and oustees because of their low skill level.⁷²

The net employment effect of subcontracting by the power companies -- that is, whether it has reduced the total number of jobs or helped increase them -- is not clear and needs to be empirically ascertained. But it is clear that this subcontracting adversely affects oustees. By subcontracting tasks or by hiring labor for these tasks through labor contractors, the total number of permanent less-skilled jobs in the power plant, obviously, declines. This means that there are a fewer number of permanent unskilled jobs reserved for oustees. In contrast, the coal company does not hire casual workers in the mines and as

competition has squeezed the profit margins and that they cannot provide all the benefits that the power company stipulates them to provide.

⁷¹ Discussion with an operations engineer.

⁷² A World Bank Report (11/1990) notes that:

"Limited no. of oustees were given employment and on-the-job training by NTPC, and employed through various contractors working for the project. However, no employment opportunities have been provided to a majority of the oustees, *because of their low skill level.*" (emphasis added)

a result can offer permanent jobs to a greater number of oustees. While two of the power plants together offered only 360 permanent unskilled jobs to oustees, they hired 4,100 casual workers (see Table 5) -- and the casual jobs in these two power plants alone are 30% more than the total of 3,150 oustees that the coal company has hired for its nine mines. In other words, the primary reason why the power company hires fewer oustees than the coal company is not that they have fewer jobs but simply that they have fewer permanent unskilled jobs because they use casual workers. Subcontracting by the power company, then, directly undermines resettlement policies aiming to increase economic opportunities for the displaced by reserving jobs for them.

Cost and efficiency “gains” with casual labor

Why does the power company hire casual labor for regular tasks, and even for the technically more sophisticated tasks such as those in operations and maintenance of the power plant? I will discuss two motivations that may be behind the strategy to hire casual workers. First, hiring labor from labor contractors helps cut costs -- as mentioned earlier, these workers are provided by labor contractors at little over (roughly about 10% over) minimum wage rates. In contrast, the permanent unskilled workers in the firm are expensive -- they are paid more than minimum wages and are given substantial benefits, for example, medical benefits and subsidized education for their children.

Second, and probably more important, because contract labor does not figure on the power company's payroll, this strategy helps improve technical efficiency figures -- these calculations include only permanent employees. Performance evaluations by donors, such as the World Bank, are based on indicators that include Plant Load Factor, Total Generation, Installed Capacity Per Employee, Generation Per Employee, and Sales Per Employee. That the World Bank uses the latter labor-based indicators as proxy measures for plant efficiency is evident from the following observation, taken from World Bank's Project Performance report (1987) for the Singrauli power plant:

Table 3: Personnel Indicators

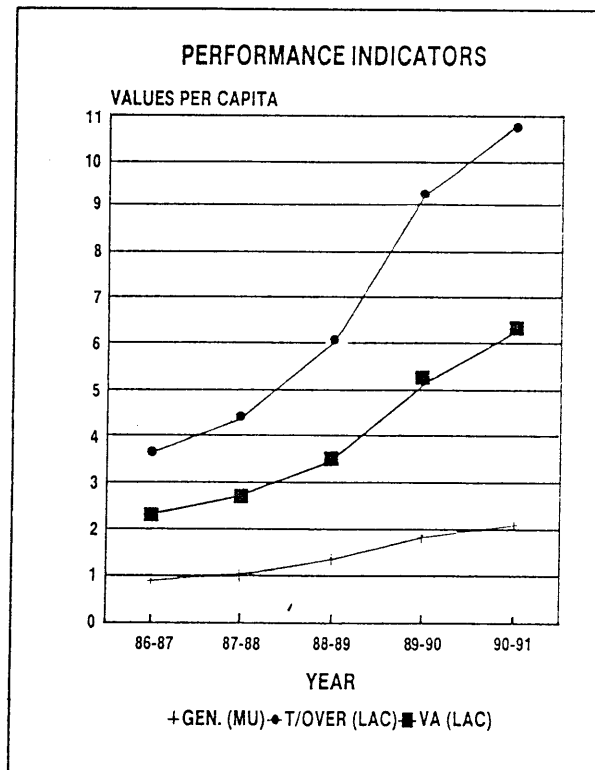
Singrauli Thermal Power Project

	FY83	FY84	FY85	FY(90)
Installed capacity per employee kW/empl.	910	1640	1690	(3020)
Generation per employee MWH/empl.	135	395	710	(1350)
Sales per employee 1,000Rs./empl.	40	130	260	(780)

Source: World Bank. 1987. "India: Singrauli Thermal Power Project." Project Performance Audit Report.

Note: 1) The data pertains to the first three coal fired 200 MW units of the Singrauli power plant. The plant now has five units with a total capacity of 2000 MW.
 2) Figures in parentheses are projections.

Figure 4. Performance Indicators



Source: NTPC (1991). Annual Report.

“ ... the efficiency of NTPC’s operations is still difficult to measure. However, there are many facets that permit the assumption that it is reasonably high. In particular, installed capacity, generation and sales related to the number of employees (see Table 3) progress in the right direction. No judgment, however, is possible whether these parameters have already reached acceptable levels.”

Use of personnel-based indicators, such as Generation Per Employee, as proxy indicators for plant efficiency, then, creates strong incentives for the power company to reduce the number of “employees.”

These proxy indicators suggest that the power plants have become increasingly efficient. The personnel indicators used by the World Bank (Table 3) show tremendous gains in the efficiency of the power plants; for example, the “mega watt hours of energy generated per employee” increased ten-fold between 1983 and 1990. Similarly, the power company’s performance chart (Figure 4) which assesses trends in performance parameters such as generation per capita, turnover per capita, and value added per capita, indicates a phenomenal improvement -- two, three, and four fold increases in the above indicators, respectively -- over a four year period. It is imperative to ascertain the extent to which the improved efficiencies are due to a mere “relabelling” or redesignation of unskilled and semi-skilled permanent jobs as unskilled casual jobs, and to determine the actual efficiency gains that have been affected by the power plants. Excluding temporary employees from these calculations means that efficiency figures may be artificially high, given that even plant operations are staffed by casual workers. Further, the use of personnel-based indicators as proxy indicators for measuring plant efficiency is particularly questionable, given the break-up of total cost of power operations -- in 1990-91, 53.5% of the total cost was fuel, 31% was depreciation, and interest/ finance costs, and only 4% of the total cost of power was spent on employee remuneration and benefits.⁷³

⁷³ NTPC (1992). “Operating Results -- Paid and Provided For (i.e., costs), 1990-91,” Annual Report, pp44.

Table 4: Permanent and Casual/ Contract Jobs in Power Plants

Power Plant	No. of Permanent Jobs	No. of Perennial Contract Labor Jobs	Perennial as percent of Permanent
Singrauli (SSTPS)	2396	1131	47.2%
Vindhyachal (VSTPP)	1947	1193	61.3%
Rihand (RhSTPP)	1099	648	60.0%
Total	5442	2972	54.6%

Source: NTPC. 1992. "Status of Contract Labor (Perennial Jobs)," Human Resources Information Report.

Table 5: "Perennial" and Other Casual/ Contract Jobs in Power Plants

Power Plant	Total no. of Permanent Jobs	Total no. of Perennial Contract Labor Jobs	Total no. of Contract Laborers hired in December 91	Perennial as percent of total contract jobs in December
Singrauli (SSTPS)	2396	1131	N.A.	-
Vindhyachal (VSTPP)	1947	1193	2648	45.1%
Rihand (RhSTPP)	1099	648	1452	44.6%

Source: NTPC. 1992. "Status of Contract Labor (Perennial Jobs)," Human Resources Information Report.

Temporary jobs inside power plants versus outside

The above discussion connects up with another observation. When questioned about sources of employment other than, or alternative to, permanent jobs, locals and oustees indicated that temporary jobs located inside the plants were the next best option. This was surprising -- why would locating them “inside” a plant make undesirable temporary daily wage jobs with “outside” labor contractors more appealing? As hinted at before, many of the tasks that are contracted out are not sporadic or irregular, but are recurring tasks that are contracted out on a regular basis. That is, the demand for this work is fairly consistent and the workers generally get hired for one to three months, or even longer. These jobs, hence, offer more security than other temporary work where workers are unsure whether or not they will get work the next day. In fact, the power company considers some of these casual jobs as “perennial.” The company’s Human Resource Information report (1992) indicates that the three Singrauli plants, which have a total of 5,442 employees, have an additional 2,972 “perennial contract labor jobs” (Table 4, 5) -- in other words, they have an additional 55% jobs that are “permanent” but without benefits. Workers employed in some of these jobs may also be “permanent” -- this is evident from a plant engineer’s observation that casual workers employed in plant operations tend to remain the same, even if the labor contractor changes.

A second reason, probably the more important one, as to why daily work in the plants is preferable to similar work outside is that, in the latter case, workers are often not paid the required minimum wage. Given the excessive supply of labor in the area, private contractors are able to get workers for only about Rs. 20 per day, although the minimum wage rate is Rs. 26.50 and Rs. 32.59 in Madhya Pradesh and Uttar Pradesh, respectively. In contrast, casual workers in plants are paid the appropriate minimum wages; random spot checks by personnel staff on pay day, and the fact that the workers can threaten to complain to the administration who view divergence from the minimum wage rule unfavorably, help enforce the rule.

Casual work in the plants is, then, both more secure and better paying than casual work with private contractors outside the plants. In other words, these are semi-skilled, relatively secure jobs at a minimum daily wage rate that are not as good as unskilled permanent jobs with benefits, but are better than unskilled, temporary, undependable and lower-than-minimum wage rate jobs outside the plants. And the power plants have a substantial number of these casual and perennial jobs to offer.

The locals and oustees complain, however, that they are often unable to access even these jobs, because subcontractors discriminate against them in hiring; subcontractors prefer migrants and often even bring their own work force from outside the region. Discussions with some of these subcontractors and other private employers reveal that migrants are preferred since they: work harder; take fewer holidays; and are more skilled at certain tasks -- for example, workers from Orissa and Bihar are good at handling the coal used in the power plant, due to their prior experience in sorting coal. Implicit in these discussions is the notion that migrants are more manipulable and are more easily exploited -- they often agree to pay kick backs to the contractors, and to work longer hours. Further, the migrants lack organization -- they belong to different parts of the country, and are spatially scattered among the labor colonies, villages, and resettlement colonies. Finally, migrants are unlikely to get much attention from either the local administration or local leaders. In contrast, with the politicization of the resettlement issue, oustees are a special constituency and are in a position to draw the attention of local leaders, the companies, and the district administration to their complaints, for example, that the contractor is not paying them minimum wage.

The locals perceive these subcontractors, who prefer hiring migrants, as the "bad guys" and as the critical obstacle to their gaining access to good daily wage jobs with public sector firms. They argue that if these subcontractors are eliminated they will not have trouble getting employment. A labor cooperative has recently been formed by 280 oustees to bid for contracts and to compete with "outside" contractors; it has started work on its

first contract for the Singrauli power plant. Although their bid was not the lowest, the General Manager of the plant suggested that they split the contract with the contractor who made the lowest bid -- that is, that they take up responsibility for half the task at a rate equivalent to the lowest bid. The labor cooperative accepted the offer to prove that they can handle these tasks. Because of the low rate of the lowest bid, members of the cooperative are earning less than minimum wage on this contract. They believe that the other contractor put in a low bid to undermine the cooperative's bid, and while he will be able to recover losses on this project through profits in other projects, the cooperative may not be able to survive many such deals. They suggest that the power company protect their cooperative from such undercutting, and the company assure them a certain amount of work or at least give them preference in the awarding of contracts. Because the cooperative is only a couple of months old it is too early to evaluate success or failure, but their suggestions appear to be worth exploring; giving work to labor coops formed by oustees is one alternative that the companies can consider to increase employment opportunities for the displaced.

In sum, people displaced by the power company have substantially lower chances of getting permanent jobs with the firm, as compared to those displaced by the coal company because the power company has fewer permanent jobs to offer to oustees. This cannot entirely be explained by arguing that thermal power generation inherently requires less unskilled labor than coal production, or that oustees do not have the skills to handle the more technical jobs. The power plants require more semi-skilled and unskilled labor than they keep on their permanent rolls. The power company hires the additional labor required through labor contractors -- this cuts cost and helps "improve" plant efficiency indicators that are based on the number of permanent employees. Locals and oustees see these temporary jobs inside the plants as the next best alternative to permanent jobs since they are more regular/ secure and pay at least the minimum wage. They complain that their chances of getting even these jobs are low, however, because the contractors discriminate against them and are in favor of hiring migrants who are more manipulable. Ousteas suggest that

these jobs be reserved for them, or that their labor cooperative be ensured work contracts, or at least that they be given preference in the awarding of contracts. In essence, policies aiming to increase employment opportunities for oustees by reserving jobs for them, are not likely to work if energy experts of donor agencies, and managers of these plants continue to perceive hiring oustees and achieving efficiency as contradictory goals.

Training to give oustees a competitive edge

Electricité de France, the World Bank, central government officials in New Delhi, and local municipal authorities have been discussing training as a partial solution to the employment problems faced by the oustees. Representatives of these institutions suggest that the government should establish training centers in the area⁷⁴ and that the power and coal should take collective lead in designing and running training programs for oustees. The extent to which training can help resolve the employment problem, however, remains questionable.

Vindhyachal power plant's recent experience with training indicates some of the problems that are likely to come up. Under mounting pressure from oustees and district administration officials to provide training and other economic opportunities to the displaced, Vindhyachal's management decided to start a carpentry training program. The plants management claims, however, that the response has been poor. Only 15 people joined the six-month carpentry training program, and of these only six completed it even though it was offered free of cost. According to the officials this indicates that oustees are not interested in working and learning. The oustees, however, offer a different explanation. First, people need to earn their daily wage to survive -- they cannot afford the luxury of a stipend-less six month training program. Second, carpentry is not a skill that

⁷⁴ SADA officials note that a training center which was constructed three years ago at a cost of Rs. 35 million (\$ 1.4 million @ Rs. 25 per US Dollar), has yet to commence operation. First, water supply is a problem in the area and the funds required to installing an independent system have been unavailable. Second, despite repeated requests NTPC and NCL have neither provided a forecast of their requirements for skilled labor, nor have they offered any information on kinds of skills they will potentially be requiring.

can help them gain permanent jobs with these firms -- welding and electrical work, for example, can. This example highlights problems that often plague training programs and projects -- non-marketable skills, low outreach, and high costs (see for instance, Kilby 1979, Kilby and D'Zmura 1985). In contrast, the coal company's on-the-job training program appears to work relatively well. Several coal company employees claim that they joined the firm as unskilled workers but have moved up the ranks to become "technical" workers due to their on-the-job-training. Vindhyachal power plant's rules, in contrast, are structured such that unskilled workers cannot be upgraded to the next category even if they can technically run the operation, for example, a print shop, presumably because they do not fit the criteria for minimum qualifications.⁷⁵

In sum, training programs such as carpentry are less likely to succeed even though they appear to offer an apparently marketable skill. This is because the only training programs that appear to be of interest to oustees are those that offer skills that will potentially lead to permanent jobs with firms or will make them competitive for these jobs. According to district administration officials, any training programs necessarily need to have the firms on board -- the firms need to indicate the skills they may require, and to offer contracts or jobs to some of those that complete this training. Further, on-the-job training and subsequent promotion/ upgrading to technical jobs is one way to create opportunities for more unskilled oustees to be hired. Ousteas argue that a revision in rules and regulations, such as those regarding promotion and minimum qualifications, can increase their employment opportunities in these firms. All of these recommendations and training, in general, can only marginally help improve the situation, however, given that the number of permanent jobs in these companies are limited, and because semi-skilled and skilled jobs, for instance, with coal contractors are likely to diminish with increasing mechanization of coal transportation and processing.

⁷⁵ According to another interviewee, unlike the Vindhyachal plant, the Singrauli plant does provide on-the-job training to its unskilled workers and does promote them to more technical jobs. The difference between the two plants appears to be an interesting question for further research.

CONCLUSION

The argument that I have attempted to make in this section is not that the coal company is better than the power company, nor that subcontracting is bad, nor that all temporary semi-skilled and unskilled jobs in the power plants should be reserved for oustees. What I have attempted to indicate is that policies recommended by the World Bank's energy sector, to reduce costs and improve efficiencies at sector level and at the plant-level, appear to pull in the opposite direction from the resettlement policies that the Bank would like to see implemented. Certain government policies aimed at improving the efficiency of the sector level, such as the banning of "free sale" of coal, have altered the structure of the economy. These changes have diminished some of the employment and business opportunities that the capital intensive, high technology industries did create. Now World Bank funded Coal Handling Plants aimed at increasing capital efficiency and the efficiencies of the power plants and coal mines, promise to wipe out the remaining employment opportunities, in the coal industry, for both locals and oustees. Plant-level efficiency targets and performance measures have caused the plants to deploy casual labor instead of permanent workers. This has adversely affected the oustees by reducing the number of permanent jobs reserved for them. Currently there is a need to ascertain the extent to which the increased efficiencies of the power plants are achieved by strategies such as relabelling of permanent jobs as casual jobs, and to question the desirability of achieving greater sector-level efficiencies by replacing myriad jobs, for example, with Coal Handling Plants. The narrowly defined project efficiency targets may be leading to economic inefficiencies at a larger level -- they may be adversely affecting employment opportunities in the region as a whole and compromising the goal of local economic development. These strategies need to be reassessed if the local economy, and the alleged concern for alternative employment opportunities of oustees, are issues of any importance at all -- that is, if employment is indeed a question.

V. CONCLUSIONS

This study has focused on some of the unforeseen and neglected outcomes of developments in Singrauli. Some of these unforeseen outcomes were positive -- there were unexpected negotiations between the oustees and expropriating firms; oustees were able to purchase additional land; and under certain conditions the capital-intensive high technology industries were able to create jobs for oustees. This analysis suggests ways in which some of the better outcomes that occurred quite by accident can be made to happen by intention through policy, potentially with a higher success rate. It also proposes a different way of thinking about the issues of participation, land transfer, and employment that may be pertinent not only for resettlement projects, but for development projects in general. In this chapter I will, first, summarize the three main arguments of this study and their broader implications. Second, I will discuss the institutional mechanisms that appear to be more appropriate for resettlement and the role that the state can play in improving resettlement performance. Finally, I will identify some issues for further research.

Negotiation as effective participation

Beneficiary participation is generally understood to be a process where communities organize to participate in decision making and to take over the implementation of certain project tasks. The Singrauli case shows that even in the absence of formal channels for participation, negotiation serves as an effective mechanism to ensure participation in the decision making process. In Singrauli, by resisting and refusing to accept centralized decisions -- for example, on where they should relocate, and the extent to which they should be compensated -- oustees have forced expropriating companies to come to the negotiating table and to respond to their demands. This suggests that negotiation may be an alternative way of viewing beneficiary participation; that is, facilitating negotiations

between beneficiaries and project agencies appears to be an easier first step than devising elaborate means to include beneficiary involvement in various stages of decision making and project implementation. A negotiations approach, then, may serve as a beginning that is both more realistic and more effective than “participation” as it is conventionally understood.

Successful land purchase and the diversified income portfolio

In direct contrast to the dismal performance of project agencies in acquiring replacement land for resettlement, oustees in Singrauli have themselves purchased land despite the relatively low compensation rates that they were paid for their land. This is particularly significant given that Singrauli is an urbanizing area; the intensification of land use and increase in land prices that accompany development are conventionally presumed to preclude the possibility of purchasing replacement land in urban and urbanizing areas. Entrusting the responsibility of identifying land to the oustees themselves, instead of to project agencies, makes the task more achievable and allows individual households to select options best suited to their needs. Ousteers can identify small parcels of land for either a single family or a small group of families, they can and do opt for different sizes of parcels, different quality of soils in different areas, and over a range of distances, depending on their individual needs and means. Not only can ousteers bring into play land that agencies cannot consider appropriate for resettlement, they are also more willing and able to search for replacement land. A decentralized method for affecting land transfer, then, may be more effective -- instead of requiring expropriating agencies to identify and acquire large blocks of fertile land for transfer up-front to the ousteers, it may be more appropriate for ousteers to identify land for themselves and for the expropriating and public agencies to encourage and facilitate this process (discussed in “The role of the State” subsection).

The resettlement literature suggests that land is critical for rural resettlement but that it plays a less important role in providing economic options to urban ousteers. The

Singrauli experience indicates that this may be a false dichotomy -- in the urbanizing area of Singrauli, oustees purchased additional land to increase their economic options, instead of relying merely on urban jobs. They purchased additional land even though they were allotted serviced urban plots by the expropriating firms. It was the combination of urban plots and additional land, even if these were non-agricultural parcels, that allowed the oustees to diversify their income portfolio to include income from rents, jobs, kitchen gardens, and livestock. In casting the resettlement strategies as choices -- urban plots versus peripheral land, jobs versus land, and urban versus rural -- resettlement programs may be overlooking a range of options critical to successful resettlement and rehabilitation.

Inadvertent effects of policy on employment opportunities

The government's energy sector policies and "efficiency" concerns of donor agencies have had a more powerful impact on the amount and nature of jobs than any job-linkage or job-creation policies implemented in Singrauli. Coal and power policies have reduced the local employment opportunities that these capital-intensive, high technology industries did generate. Whether these policies actually help realize efficiency gains and whether these gains offset the adverse effect on the local economy remain to be empirically ascertained (see "Research Questions").

In 1980, the government decided to switch from "free sale," where coal was sold to small industrial consumers, to almost complete linkage, where 98% of the coal mined in Singrauli is now sold to power plants. This policy switch has introduced economies of scale that justify increasing investment in capital intensive machinery that displaces labor intensive processes in coal processing and transportation. This policy has altered the structure of the economy, has reduced the total number of jobs available, and has diminished local multiplier effects that the coal industry potentially offered. A more recent development that is likely to adversely affect the local economy is the installation of Coal Handling Plants (CHPs), one of which is being funded by the World Bank. According to

World Bank experts, these CHPs will replace coal handling contractors and less mechanized loading processes, and will increase capital-efficiency. But these CHPs also promise to wipe out the remaining employment opportunities in coal processing and transportation -- they will adversely effect both locals and oustees.

Permanent unskilled jobs in the coal mines and power plants in Singrauli are reserved for oustees. This policy has helped most families displaced by the coal company gain access to one job with the company. This policy has worked less well for oustees displaced by the power company; only about one in ten families displaced by the power company have gained permanent jobs with the power company. This is because the power plants have opted to cut costs and improve “efficiency” by subcontracting out -- by redesignating full-time, unskilled and semi-skilled jobs as temporary unskilled daily wage jobs. Subcontracting makes the plants look more efficient because personnel-based indicators, such as “generation per employee,” that are used by donor agencies as proxy measures for plant efficiency do not include temporary labor. Subcontracting has reduced the number of permanent unskilled jobs usually reserved for oustees.

In sum, the government’s energy policies and efficiency concerns of donor agencies have undermined their resettlement objectives and policies hoping to improve economic opportunities for oustees. While sector efficiency targets and resettlement goals need not necessarily be contradictory, in this case they do run counter to each other. This discussion suggests that getting resettlement policies right may not help if sectoral policies, rules and regulations pull in opposite directions. That is, if energy experts of donor agencies and managers of these plants continue to perceive, perhaps incorrectly, jobs for oustees and efficiency targets as contradictory goals or as an efficiency versus jobs issue.

Institutional framework for resettlement

In Chapter 2, I argued that certain institutional frameworks were more conducive to negotiation than others. Negotiations worked better when oustees had to deal with a) a

single agency as opposed to a coalition, because demander pressures could be directly targeted; b) the expropriating firms directly because they had a greater stake in the outcome, as opposed to an intermediary; c) the public sector firms which were resource rich as compared to local municipal agencies; and d) firms rather than government agencies because, unlike the latter, the firms did not have coercive power that they could use to thwart oustee demands.

The Singrauli case suggests that in the absence of one or more of the above conditions, negotiation and “demander” pressures become diffuse and this, in turn, adversely affects resettlement performance. These findings are supported by the organizational literature and Bank evaluations which indicate that allocating tasks to a single agency, giving it the political and financial means to carry out project tasks, and subjecting it to “demander” and other outside pressures, help improve project performance in general (Tendler 1991).⁷⁶

This discussion brings into question two approaches emphasized by World Bank technical and policy papers. Project implementing agencies, especially those that specialize in and execute engineering and civil works, these papers note, tend not to have resettlement expertise and often relegate resettlement to the status of a low priority task. World Bank experts, therefore, suggest the following options for implementing resettlement in development projects. Either the borrower should set up a separate resettlement unit with resettlement expertise -- the power company, for example, should establish a separate resettlement unit and this should include resettlement experts. Or, alternatively, the responsibility of implementing the resettlement component should be entrusted to local or regional government agencies because: they know the population and area, can mobilize local expertise, speak the resettler’s language, and because these agencies will ultimately be

⁷⁶ Also see Weiss (1987), Ostrom (1990).

responsible for the integration of resettlers into the host population and area (Cernea 1988, WB 1991).

Although World Bank experts believe that resettlement is better handled by separate resettlement units and especially by those that have resettlement expertise as compared, for example, to units staffed by engineers, the Singrauli case indicates that these factors may not be critical to resettlement performance. Rather certain conditions can induce even non-performing units and disinterested engineers to perform effectively.⁷⁷ In Singrauli, the factors that accounted for the differences between the coal and power company, and made engineers in one firm perform better than the other were, for example, whether the firm was subjected to direct top-down and bottom-up pressures, and on whether it had resources and decision making power. Indeed, even if staffed by experts, resettlement units that are not backed by resources and decision making power could merely diffuse outside pressures and, hence, adversely affect performance.

World Bank's second suggestion that government agencies handle resettlement may also be problematic. Experience with the SADA-NTPC coalition (i.e., the alliance between development agency and the power company) shows that shifting responsibility for implementation from expropriating firms to government agencies, removes pressure from the expropriating company and the company can no longer be held directly accountable for resettlement performance. Shifting responsibility to government agencies also means that expropriating firms have less incentive to minimize displacement, and to use their managerial skills and resources to work out innovative ways of improving resettlement performance. Further, it also tends to reduce the direct costs to the firms and removes incentives for firms to internalize resettlement costs -- in contrast, when firms are directly responsible, resistance by oustees, for example, imposes direct and visible costs such as

⁷⁷ Tandler (1991) notes that: "...established infrastructure agencies often do quite poorly at tasks (such as installing rural water systems) assigned to them by Bank projects ...; other agencies, with less experience or specialized expertise, often do better. This suggests that such activities should sometimes be placed outside their traditional bureaucratic homes, perhaps only temporarily, in 'inappropriate' agencies or even new units -- if these units are more motivated by sympathy and outside pressure to do well."

loss of production and forces the firms to offer benefits and internalize some of the costs. In addition, it may be inappropriate to shift the resettlement task to government agencies because they often have recourse to coercive power that may adversely affect negotiations and participation. Finally, burdening local agencies with the responsibility of implementing the complex and politically sensitive task of resettlement appears to run counter to any efforts to strengthen local government.

The role of the state

Although it may not be appropriate to shift the responsibility of implementing the entire resettlement program from expropriating firms to local or central government agencies, government agencies do have an indispensable role to play. In Singrauli the central government played a critical role by pressuring the expropriating companies to improve their resettlement performance. And it was pressure from the central government that discouraged the local agencies from using force to relocate the oustees. Without these pressures from the center resistance by oustees may have been more easily thwarted and less effective -- it was the simultaneous top-down and bottom-up pressures that effectively “sandwiched” the expropriating companies and forced them to improve their resettlement performance.

Further, the suggestion that the expropriating companies handle their resettlement program directly, does not imply that local agencies such as SADA should be eliminated from the process. In fact, even though SADA officials complain about the “unnecessary headaches” associated with handling the power company’s resettlement, they are unlikely to willingly disassociate themselves from the process since it is both a source of finances as well as power. These local agencies can play a more useful role as facilitators, rather than implementors, of the resettlement process. For instance, if they were to align with the oustees and bring state authority to bear on their behalf, they could help correct the power imbalance between the expropriating agencies and the oustees. This would directly

facilitate negotiations, and help ensure that some fairness is maintained in the process. In the Shahpur case, SADA's Chief Executive Officer used his influence to bargain with the power company on behalf of the oustees, and helped increase the number of jobs offered to them. SADA's support for the oustees was undermined by its institutional affiliation with NTPC; this situation needs to be corrected.

State intervention is crucial to make the land-for-land process work more broadly and especially for landless farmers -- that is, for oustees who did not and/or could not invest in additional land. For landless farmers, for example, limited access to credit and the minimal compensation for which they are eligible, tend to preclude the possibility of their purchasing additional land themselves. State agencies can help facilitate land transfers in several different ways. They can offer incentives to oustees to invest their cash compensation in land. For instance, because land owners often demand that buyers pay for the land in lumpsum, state agencies can promise to make compensation money available in lumpsum for purchase of land, instead of in installments. They can also facilitate land purchase when the price of the identified parcel is somewhat higher than the compensation, by offering financial support in the form of credit. Alternatively, they can facilitate transfer by speeding up the registration process, or they can agree to transfer unoccupied state land identified by oustees. And these agencies can also encourage purchase and settlement in certain areas by providing infrastructure and technical assistance.

Finally, it is the central and state governments that can ensure that their sectoral and broader economic development policies do not run counter to each other and to resettlement goals. The state can build in a series of incentives to induce the companies to improve their resettlement performance. Further, current efforts by the central government to draft a set of national guidelines on resettlement should help improve the situation. Finally, the central government can work with the governments of Uttar Pradesh and Madhya Pradesh, and with the coal and power company to establish comparable norms. This will help

reduce the ambiguities as well as some of the tensions that exist as a result of differential rates and different compensation packages across borders and between companies.

Research Questions -- Employment

Employment is clearly a major issue in the Singrauli area. The discussions in this study indicate that certain sectoral policies may be adversely affecting employment opportunities and broader economic development goals in the area. These inadvertent effects may, in part, be because neither World Bank energy sector experts, nor managers of power plants and coal mines, nor resettlement experts -- that is, the key actors currently affecting coal and power policies -- are likely to be concerned about local economic development and job-creation *per se*. The Singrauli case highlights the importance of assessing the overall impact of these isolated policies on employment and the local economy. The impact of these policies needs to be empirically ascertained by more detailed studies.

In the mining sector it may be worthwhile to reassess the impact of the proposed Coal Handling Plants on local employment opportunities. It is imperative to ascertain the efficiency gains that these Coal Handling Plants will affect in Singrauli, especially since the power company's data indicate that there is no generation loss due to coal. That is, the current system of deploying large contractors appears to be efficient enough -- the system meets current needs and appears to be sufficient for catering to some expansion in turnover. Further, while jobs in coal processing are considered to harm worker-health, it may be inappropriate to replace these with mechanized plants unless there are alternate sources of employment. In addition to a benefit-cost analysis, it is important to determine the backward and forward linkages of these investments. Recent research indicates that investments with high backward linkages tend to be less labor-intensive themselves; a larger proportion of their input payments go to associated industries as opposed to labor (Polenske, forthcoming). This issue becomes critical if, as in this case, the backward

linkages are to industries outside the region -- these investments, then, have little positive impact on the local economy. In such a case it may be more appropriate to opt for labor-intensive processing as opposed to mechanization. Investments in capital-intensive coal handling plants may be the better option in areas where the ancillary industries are locally based; the latter would help ensure direct and indirect employment opportunities while the coal handling plants would help realize economies of scale.

In Singrauli, one alternative that the government could consider to assist the local economy, is the “delinking” of a certain percentage of coal production from power plants. That is, some of the coal could be made available on the market to consumers other than power plants. Whether this is feasible, and questions regarding the percentage that should be delinked and how it can best be used, appear to be useful research questions. Some of the potential advantages of making some percentage of the coal mined in the area available on the local market, are listed below. Making coal available on the market to private consumers may help resurrect some employment opportunities in coal processing and transportation both for small firms and casual laborers. An increase in the number of such small firms and laborers would also assist local service industry, and small retail shops. Making coal available in the local market can help local people and some of the smaller coal-based industries, such as brick kilns, who currently rely on the illegal or “black” market to obtain coal for their fuel needs. Allowing the coal company to sell to consumers other than power plants will potentially also benefit the coal company that has been plagued by poor cost recovery largely due to delays in payments from the power sector.⁷⁸ Sale of coal on the market by the coal company would mean instant recovery, that is, the company can obtain immediate payments on at least a portion of its production. Further, revenues for the coal company can potentially be increased if this delinked coal is sold at market rates; coal to the power sector is supplied at government controlled rates that are a little over

⁷⁸ NCL (1992). Performance At A Glance report.

production cost, while the rates on the (black) market are substantially higher. The coal company can capitalize on this difference between controlled rates and the black market rates and realize greater profits at least on the coal that it sells on the open market.

In the power sector the subcontracting process deserves additional attention. It can be argued that the plants have reduced their fringe-benefit costs and wage bill by shifting to contracted labor. Reducing their permanent jobs has also helped them look more efficient. The method of using multiple subcontractors, however, may be more labor intensive, than if the tasks were to be done in-house by using machines. In other words, further research needs to ascertain whether the subcontracting process is creating jobs or reducing them, how it is affecting the nature of work done, and who is gaining or losing in the process.

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