

Land Acquisition and Compensation in Singur: What Really Happened?

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- And in education and aspirations of the young, who seek non-agricultural occupations

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- So it bent over backwards to invite private industry
- Tried to lure Tata away from tax concessions offered in HP and Uttaranchal
- Tata picked a site in Singur, 90 km from Kolkata, located on the Durgapur Expressway
- WB state government used its powers of eminent domain using the 1894 Land Acquisition Act, acquired 997 acres of (mostly) prime agricultural land

The Fiasco

- Local community in Singur was not consulted at the outset (learnt of the acquisition from newspaper reports)
- Owners of one-third of the land protested, backed by the Trinamul party which controlled Singur
- Protests escalated, confrontation between protesters and police...
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- Tata stopped building its factory in 2008, withdrew to Gujarat
- In May 2011, Left Front lost its majority in the state legislature to Trinamul for the first time in 35 years

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- 3 What were the impacts of the land acquisition on different socio-economic groups in the affected villages?
- 4 Implications for future land acquisition policy

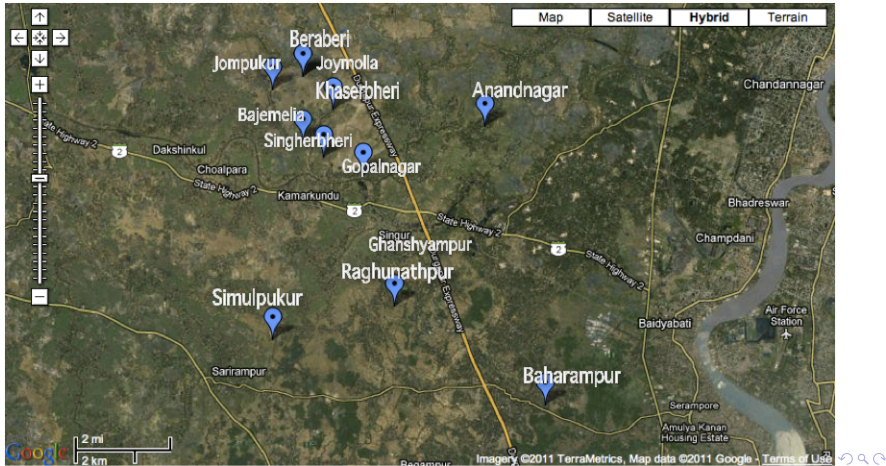
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- Compared them with households in 6 neighboring non-affected villages located on both sides of the Durgapur Expressway

GPS Village Map



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- Demographics, ownership of land and other assets, education etc very similar across three groups
- Compare households reports of market value of land, past market transactions and compensations offered, with government documents concerning compensations offered and basis thereof

Proportion of Households Directly Affected in Acquired Villages

Distribution of Households in Acquired Villages (Listing Data)

	Percentage of Households		
	All Households	Affected	Unaffected
Owner Cultivators	16.5	8.8	7.7
Tenant Households	4.0	2.5	1.5
Agricultural Labor	42.7	19.9	22.8
Non-agricultural Labor	36.8	23.3	13.5
Total:	100	55	45

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 - Theoretical arguments imply compensations should be at least as large as personal valuations, on efficiency grounds alone (Ghatak and Mookherjee 2011)
 - Supplementary arguments on grounds of fairness and political sustainability

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- Land rates for different kinds of land
- Additional solatium of 30%, plus allowance for irrigation, location of plots to be entertained
- We find these were close to market values as reported by households, and above market values predicted on basis of past transactions

**Table 1: Land Market Valuation Rates
announced by the Government**

Type of Land	Land Rate (per acre)
Sali	Rs. 6,01,718
Sona	Rs. 8,80,029
Homestead Land	Rs. 18,04,431

Table 2: Comparing offered rates with predicted market values and reported market values

Type of Land		Average compensation offered reported in survey	Average Reported Mkt. Price at the time of acquisition	Predicted market values for 2006 based on actual transactions since 1995
Sali	Low	Rs. 8,98,942	Rs. 8,03,957	Rs. 3,40,884
	High	Rs. 8,76,124	Rs. 8,43,729	Rs. 4,57,785
Sona	Low	Rs. 8,34,041	Rs. 8,77,883	Rs. 6,24,955
	High	Rs. 8,80,676	Rs. 8,52,385	Rs. 5,44,421

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- According to household reports of compensations offered, average amounts actually offered for *sona* land did not include solatium, while for *sali* land they did

Table 4: Comparison of compensaion and reported market values by land type

VARIABLES	(1) Reported market Value	(2) Compensation Offered	(3) Reported market Value	(4) Compensation Offered
Sona Low	-62,782 (62,691)	-58,301** (24,490)	95,619* (49,910)	-73,146*** (24,579)
Sali high	-371,210*** (86,318)	-12,042 (9,884)	-134,894*** (41,823)	-26,556** (11,990)
Sali Low	-267,898*** (66,548)	57,619 (35,868)	-154,787** (65,595)	56,108** (28,017)
Constant	2.233e+06*** (322,646)	887,976*** (15,493)	777,087*** (204,530)	794,761*** (112,090)
Observations	611	475	589	465
R-squared	0.236	0.036	0.236	0.125
VillAge FE	YES	YES	YES	YES
Other Plot characteristics	NO	NO	YES	YES
HH Characteristics	NO	NO	YES	YES

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, *

1. Compensations Offered

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- Table 2: Household reports of compensations offered were lower than announced rates plus solatium for *sona* plots by about 30%, and higher than these by about 10% for *sali* plots
- How did this happen?
- Did actual compensations offered deviate from the announced policy?

1. Compensations Offered, contd.

- Examining the government documents, we find (Table 4 in the paper):
 - On one quarter of the plots, no compensation was offered, possibly owing to inability to assess market value
 - On the remaining three quarters, offered compensations matched the announced rates for about 97% of the plots

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 - Since reported compensations by households were non-zero this implies that the discrepancy is not explained by deviation of actual offers from announced rates

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- Whereas households in our sample report 32% of all acquired plots were *sona*
- Calculations (Section 3.4 of the paper) show this can account for the discrepancy

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- Under-compensation relative to market value a significant predictor of rejection of the offer by owners
- Owners of *sona* plots and irrigated plots more likely to reject
- One standard deviation increase in under-compensation led to 12% lower probability of acceptance

Table 6: Predicting acceptance of compensation offers

VARIABLES	(1) Dependant variable: Whether compensation offer accepted Probit	(2) Probit	(3) Probit
Deviation of Compen offered from HH's reported Mkt Value	-0.121*** (0.0210)		-0.0945*** (0.0314)
Sona Low		-0.0478 (0.0605)	0.158** (0.0742)
Sali high		0.0804* (0.0440)	0.148** (0.0742)
Sali Low		0.319*** (0.0447)	0.297*** (0.0687)
Whether Land was irrigated			-0.220*** (0.0594)
Distance			-0.209** (0.0973)
Observations	687	937	672
Village FE	YES	YES	YES
Other controls	NO	NO	YES

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

2. Additional Determinants of Decision to Reject Compensation Offers

- Two additional reasons for rejection of offered compensations:
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- Inability of government rates to incorporate heterogeneity of plot characteristics
 - Table 9 in paper: Dispersion of land values for similar plots across villages
 - Land values also depend on cropping patterns, whether the owner has complete selling rights etc.

Table 5: Determinants of reported market values

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Sali high	-371,210*** (86,318)	-134,894*** (41,823)
Sali Low	-267,898*** (66,548)	-154,787** (65,595)
Irrigation		-70,482 (59,200)
Distance from highway		107,366* (57,140)
Paddy (Aman) Yield per Acre		238.4*** (81.90)
If Rice grown for more than one season		622,770*** (141,606)
Selling Rights Lost Land		74,461** (34,670)
Total Land Owned by HH		-52,993*** (10,444)
Education Level of HOH		-1,048 (3,097)

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- Evidence (Table 11a, b of the paper) of irrigation status and location as determinants of likelihood of rejection
- Those with stronger financial motives (landlords, those who bought rather than inherited) were more likely to reject the offers
- Those more dependent on agriculture for income were more likely to reject

3. Impact of Acquisition on Incomes and Assets

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- However, gap between earnings of agricultural and non-agricultural workers grew 24%
- Durable household assets grew less for acquired households between 2005-2010 (Rs 1 lakh under-compensation associated with 25% lower growth)

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- Yet, most households did not purchase such annuities
- Diverse preferences for alternative forms of non-cash compensation: pension versus plot of land versus shop on factory premises

Implications for Future Land Acquisition Policy

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- Local community should welcome the acquisition
- What makes compensation tricky is the heterogeneity of plots and of personal valuations placed by different owners on land as an asset

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- Two problems with this:
 - Problems of ascertaining market values of acquired plots (mis-classification, incorporation of other relevant characteristics)
 - How much higher should the compensation be?
- LARR Bill in Parliament sets compensation at an arbitrary multiple (quadruple) of market value in rural areas

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- Key tradeoff: set compensation high enough to satisfy farmers, but not too high that it retards industrialization excessively
- Economists' solution (extension of Ghatak and Ghosh): elicit households willingness to give up land by conducting auctions
- We would extend their proposal to include multi-stage auctions: at the community level and then within communities at the household level

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- Stage 3: based on outcome of stage 2, each panchayat submits a bid for the project: the lowest bid wins subject to meeting the factory reserve price

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- Need to consider such policy options
- Many advantages: it is a bottom-up procedure, it incorporates heterogeneity of land, is based on voluntary participation of landowners and communities
- Additional consideration needs to be devoted to spillover effect of acquisition on tenants and agricultural workers
- And offer a choice to owners of different modes of compensation: land elsewhere, pensions, shares in the industry, shop on factory premises, training and factory employment opportunities