Modelling for Land Acquisition for SEZ

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ABSTRACT

Special Economic Zone (SEZ) is one of the most controversial issues in India in recent times. There is no doubt that it will spawn rapid industrial and economic growth. But the process of development is under question as local agitations against acquisition of land for the purpose have turned violent. In this paper, we propose a model for land acquisition which provides for rehabilitation of those displaced outside the perimeter of the SEZ, so that the appreciation of land price accrues to them and the land owner becomes a part of the prosperity that the project generates.

KEYWORDS: Special Economic Zones (SEZ), Land Acquisition, land price appreciation, Rehabilitation

1. INTRODUCTION

Special Economic Zones (SEZs) are specific geographical regions that have economic laws different from and more liberal than a country's typical economic laws. The goal is usually an increase in foreign direct investment (FDI) in the country. There is a clear understanding that a well-implemented and designed SEZ can bring about many desired benefits for a host-country: increases in employment, FDI attraction, general economic growth, foreign exchange earnings, international exposure, and the transfer of new technologies and skills. Hence, many developing countries are also developing the SEZs with the expectation that they will provide the engines of growth for their economies to achieve industrialization [World Bank, 1994].

The Government of India had in April 2000 announced the introduction of Special Economic Zones policy in the country, deemed to be foreign territory for the purposes of trade operations, duties and tariffs. After the SEZ Rules of 2006, the board of approval has granted formal approval to 439 SEZ proposals. There are 138 valid in-principle approvals. Out of the 439 formal approvals, 195 SEZs have been notified. The total area under these SEZs is 220,000 hectares (550,000 acres) [sezindia, 2008]

But this process of planning and development is under question, as the states in which the SEZs have been approved are facing intense protests, from the farming community, accusing the government of forcibly snatching fertile land from them, at heavily discounted prices as against the prevailing prices in the commercial real estate industry [Fernandes et al, 2006].

Nevertheless, government intervention is required to ensure that the farmer gets a better deal than through direct negotiations with businessmen. A big company always has the upper hand in negotiations with the small farmer or with members of a community of farmers. It can offer a price that appears attractive to the farmer but does not reflect the present or potential value of the land. But at present, the government is giving the farmer a worse deal.

In many cases, farmers are being offered a price that is attractive considering their meager earnings from their small holdings [Ramesh et al, 1997, Murickan, 2003]. Besides, owners of land in the surrounding areas benefit from a sharp escalation in land prices down the road. For example in Sriperambadur near Chennai where 750 acres of land were acquired from 1500 farmers at Rs 500,000 per acre. The price has now shot up to Rs 8 million per acre and 15,000 farmers in the vicinity stand to benefit.

Therefore the compensation must have two elements: a down payment in cash and an upside in the form of a call option on the value of the land a few years down the road. Thus ensuring that the farmer selling his land for a project becomes a partner in the prosperity that the project generates. Rehabilitation needs to be pareto-optimal. Those currently displaced should be compensated to cover the value of land, and their current incomes rising at the planned growth rates of the economy need to be protected, through compensation.

The model discussed in the paper, suggests a novel land acquisition plan which envisages acquiring land in surplus to reallocate the land among those displaced from the core area. This would ensure that the appreciation of land prices or upward revision of land prices due to land development and change in land type would accrue to the ones displaced and hence it would

minimize the possibilities of protests. Further, the relocation in the same habitat would the sociological change that a person undergoes as a result of rehabilitation is minimal.

2. Model Development

The displaced should be compensated to cover the value of land and their current incomes. Their current incomes rising at the planned or expected growth rates of the economy need to be protected [Ray, 2006]. So the onus would be on the project to ensure that incomes of all affected are protected at their expected dynamic levels.

In addition proper compensation has to be given to the sharecroppers and those depended on the common property resources (CPRs) [Pattanaik et al 1987, NCHSE, 1986]. If the sharecroppers are registered, they are to get 25 per cent of the compensation paid to the zamindar when their land is acquired. Around 250 of the sharecroppers cultivating some of the 997 acres being acquired at Singur have not been registered so they will not be compensated or resettled. Also, the 1,000 landless agricultural labourers and others like barbers who sustain themselves by rendering services to the village as a community will lose their livelihood when that land is acquired.

Land Price Appreciation

Land has always been a scarce resource and property prices follow basic economics of demand-supply. Looking at the price trend in the last few years in the areas with close proximity to Special Economic Zone the expected infrastructural development causes a sharp appreciation in land prices. As for example in Singur, 40-km. from Kolkata, before work began on the Tata Motors' small-car project, the price per acre in this fertile potato-growing belt was for Rs. 4, 50,000 which has jumped to Rs. 22.5-lakh (Rs. 20.5-million) per acre now. Similarly in Delhi's neighborhood, land prices have moved from Rs 22 lakh an acre to Rs 1 crore in Greater Noida.

The model using the above land appreciation envisages a unique land acquisition policy which is discussed below:

Let

k be extension factor indicative of the additional land to be procured

P be the distribution factor for reallocating to the sharecropper and CPR

r be the ultimate land reallocation ratio that represents the inverse of the times of price escalation

x be the exact area of land required to setup the industry as per layout

Then,

$$\frac{k.x - p.x}{(1+k)x} = r$$

$$k = \frac{r+p}{1-r}$$

So if we assume the land price appreciation to be 4.5 times and 10% of the land to be acquired has to be allocated to sharecroppers

$$k = \frac{0.222 + 0.100}{1 - 0.222}$$

$$k = 0.41_3$$

Therefore, 41.3 % land has to be acquired in excess to relocate those displaced from the layout. The loss in area of land holding is compensated by proper monetary compensation at the present value of land or at the negotiated rate. The area allocated for the benefit of sharecroppers and this model inherently also addresses the problems faced by people dependent on the CPR and sharecroppers.

The compensation package can be further modified according to the expectations of land price appreciation. We discuss two models in addition to the above, with the same underlying objective but with difference in the compensation amount.

So, for a higher expected land price appreciation of 6 times the extension factor can be calculated as:

$$k = \frac{0.166 + 0.100}{1 - 0.166}$$

$$k = 0.319$$

Therefore, 31.9% of excess land has to be acquired to rehabilitate those displaced from the planned industry layout.

In a scenario of even higher expectation of land price escalation where an appreciation of 8 times, k can be calculated as :

$$k = \frac{0.125 + 0.100}{1 - 0.125}$$
$$k = 0.257$$

The total compensation amount borne by SEZ promoter for x acres can be calculated as,

$$= \frac{c}{u} X (1 + k)x$$

where, c is the current land price

u is the negotiation factor subject to $u \leq (1 + k)$

The table below shows the comparative figures of different alternatives of compensation for an expected land price appreciation of 4.5 times

Alternative	Negotiation factor, u	Totally compensation amount borne by SEZ promoter per 100 acres (in Rs lakhs)	Land price per 100 acre received by Landowner (in Rs Lakhs)	Compensation Land for Land owners (in acres)	Compensation Land for Share Croppers and CPR dependents (in acres)
1.	NA	100	100	0	0
2.	1.413	100	58.7	31.3	10
3.	1.3	108.7	67.4	31.3	10
4.	1.2	117.75	76.45	31.3	10
5.	1.1	128.45	87.15	31.3	10
6.	1	141.3	100	31.3	10

Table 1. Comparison of compensation schemes

The above information can be used to construct a graph, where each point on the line represents a unique compensation point (Figure 1).
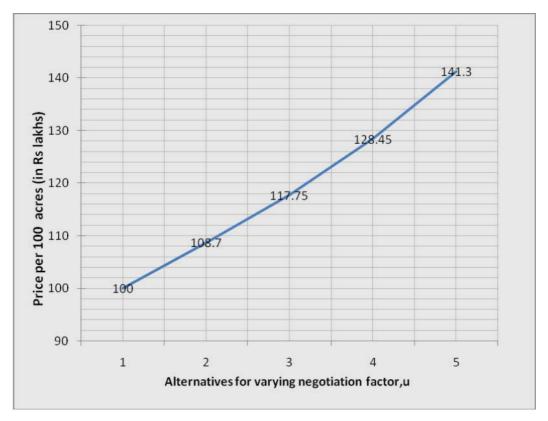
Figure 1. Compensation Possibility Curve

Similarly the compensation curves for different expected price appreciation rates can be constructed. Further, the allocation for share croppers and CPR dependants can be varied as per requirement. These curves are indicative of the various compensation possibilities and will form the basis of negotiation. The rehabilitation package thus designed provides adequate compensation to Sharecroppers and CPR dependents and the relocation in the vicinity ensure that the benefits of land price appreciation accrues to the land owners and they are made partners in the prosperity that such projects generate.

4. CONCLUSION

Rehabilitation issues have been compounded by the inherent unfairness of the acquisition process [Modi, 2006]. Correction of the same would go a long way towards better and risk reducing rehabilitation.

The objective of this paper is to design a model for land acquisition and relocation so as to offer a package whose basic thrust will be helping land owners get sustained income life long. So that it provides a level of compensation that would allow the affected person to retain his current living standard in the foreseeable future. The required specification, shortcomings of the model and environment of development has been keenly observed. The scope of the project is very wide and may pave the way for further studies and experiments to develop

better models which will aim at providing equitable compensation and catapult India into achieving still higher rates of growth.

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