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LAND REFORM AND LAND PRICES

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Land reform programmes are an important phase of India's planned economic programme, yet a remarkable absence of information on land prices exists. Although rent regulation, security of tenure, and transfer restrictions may be expected to affect land prices, evidence to determine such effects is almost wholly lacking.

But the deficiency in land price data is an obstacle not only to the evaluation of land reform programmes. Production studies,[1] appraisals of tax and revenue measures,[2] plans for the allocation of public resources in agriculture,[3] and evaluations of the economic impacts of credit[4] and other government programmes[5] could beneficially use land price information.

It is strange that so little is known about the price of the factor of production about which so much legislation has been passed. No less strange is the relatively minor attention given to impacts on land prices by the India-FAO Working Group on Methods for Evaluation of Effects of Agrarian Reform[6] and subsequent lack of action even on their modest recommendations for study. Correction of the deficiency of land price data would advance substantially India's economic intelligence.

REAL AND ADMINISTERED PRICES OF LAND

Because land is immobile and heterogeneous, and because it is not traded in a public, formal market its opportunity cost often is relatively obscure. A value of farm labour, in contrast, can be imputed from alternative wage employment. Imperfect as capital markets may be, they, too, can provide guides to the value of various types of investment. But prices for particular land units in alternative uses are not easily specified. And conventional imputational procedures, without actual exchange prices of land as benchmarks, are extremely hazardous.[7] The

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1. Raj Krishna, "The Optimum Firm and Optimum Farm : II," *The Economic Weekly*, Vol. 14, No. 41, October 13, 1962, p. 1632. "It should be one of the main objectives of agricultural economics research in the near future to arrive at reasonably good estimates of the shadow prices of land and labour in Indian agriculture." The imputed prices he recommended would be strongly reinforced by real prices.
2. Report of Taxation Enquiry Commission, 1953-54, Ministry of Finance, Government of India Press, Delhi, 1955.
3. Third Five-Year Plan, Planning Commission, Government of India, p. 85. Compared to an outlay of Rs. 688 crores in agricultural programmes alone, an outlay of Rs. 849 lakhs for all statistical and research programmes in the Third Plan was planned.
4. Standing Advisory Committee on Agricultural Credit: Report of Twelfth Meeting, Reserve Bank of India, Bombay, 1959, pp. 35-49. ("Effects of Land Reform and Tenancy Reform Legislation on Land Mortgage Banks.")
5. Third Five-Year Plan, *Op. cit.*, p. 186." . . . there are large gaps in the information at present available regarding natural resources." The Plan failed to note the gap in economic information on resources.
6. Government of India and Food and Agriculture Organization : Report of Working Group on Methods for Evaluation of Effects of Agrarian Reform, New Delhi, 1958. Also Erich Jacoby, "Evaluation of Agrarian Reform" *in* N. V. Sovani and V. M. Dandekar : Changing India, Asia Publishing House, Bombay, 1961, pp. 105-121.
7. An extremely provocative treatment of this subject is contained in Ralph Hawtrey. "Production Functions and Land—A New Approach," *Economic Journal*, Vol. 70, March 1960, pp. 114-124. Also see Stephen Enke, "Labor Supply, Total Land Rents, and Agricultural Output in Backward Countries," *So. Econ. Jour.*, Vol. 29, No. 2, October 1962, pp. 82-87.

difficulties of pricing land, however, have not prevented its transfer or lease. Neither have changes in resource allocations ceased for lack of daily land market quotations. Prices exist but some analytical skill may be needed to reveal them.

Absence of a completely free rental and sale market is an argument used against an attempt to determine land prices. Such an argument fails to recognize that (1) no market is without some institutional restraints and (2) information on what the price *would* (or should) *be* is frequently less important than what the price *is*. However, the difference between real prices and administered prices should be recognized. Several studies have shown that the rents specified under tenancy reform laws were not the real rents paid and that transfers took place which either evaded or avoided the law.[8]

Where land transfers are limited by law—and the law is enforced—the real (in contrast to administered) prices may be only shadow prices. No actual sales or rents may appear but resources will be allocated on the basis of the shadow price (generally a price higher than legal price).

Existence of real and administered prices does not imply that they are unrelated. Land reforms, such as the Tiller's Day Amendments of the Bombay Tenancy and Agricultural Lands Act, carry elements of expropriation that probably reduce the real price of land. The relationship between real and administered prices, in fact, could be an important indicator of the economic impact of land reform. If a land reform programme has no effect on real land prices, it would be difficult to say that the programme has any economic effect at all. On the other hand, if the effects on real land prices can be shown, other economic effects can be revealed and perhaps measured. Programme evaluation without land price information probably has limited economic precision.

In order to identify changes in resource prices over time, and to analyse the causes of such changes, two types of information often are required : (1) Aggregative or time series data and (2) analytical or special purpose data. These two requirements are usually satisfied by different procedures and different agencies or institutions.

BASIC DATA NEEDS

Time series of land prices showing overall changes in the relative value of resources may be used for locating and identifying problems in need of closer

8. V. M. Dandekar : Review of Land Reform Studies, sponsored by Research Programmes Committee, Planning Commission (undated, about 1961). Five other studies of the working of land reform laws which are included in Dandekar's review are :

(1) A. M. Khusro : Economic and Social Effects of Jagirdari Abolition and Land Reforms in Hyderabad, Osmania University Press, 1958.

(2) V. M. Dandekar and G. J. Khudanpur : Working of Bombay Tenancy Act, 1948—Report of an Investigation, Gokhale Institute of Politics and Economics, 1957.

(3) M. B. Desai : Report on an Enquiry into the Working of the Bombay Tenancy and Agricultural Lands Act, 1948, Indian Society of Agricultural Economics, Bombay, April, 1958.

(4) V. Y. Kolhatkar and S. B. Mahabal : An Inquiry into the Effects of the Working of the Tenancy Legislation in the Baroda District of Bombay State, M. S. University of Baroda, August, 1958.

(5) R. R. Mishra : Effects of Land Reforms in Saurashtra, Vora and Co. Publishers (Private) Ltd., Bombay, August, 1961.

study and for generalizing the inferences of smaller studies. Aggregative data may be compiled to indicate regional variations and thus permit planners to make better decisions on public resource allocations and to evaluate the possible effects of various programmes. Land values are meters of economic change. They are required for substantive evaluation of reform programmes.

Administrative or statistical agencies with continuing responsibilities are best adapted to compile and maintain time series. At the State level such agencies as the Revenue Department, Department of Registration, or Bureau of Statistics, separately or co-operatively, could maintain regional and district series on numbers of transactions and methods of transactions, classes of buyers and sellers, price indexes, and parameters of the distribution of prices. The Central Government, through an agency such as Planning Commission, Reserve Bank, or Ministry of Agriculture, could maintain such series on an All-India basis. These series might be published, say, as a part of the *Abstract of Agricultural Statistics* or the *Agricultural Situation in India.*

Sources of periodic information on land prices do exist, or at least could exist with slight reorganization and adaptation of present records and reports. State Registration Departments now prepare annual reports containing summaries of transactions, based primarily on the instrument of transfer. With some adaptation, these reports could distinguish land from other immovables and provide more information on the transactions. All the needed information such as parties, land description, acres, price, and encumbrances is available in Sub-Registry Offices. Of course, not all transactions are registered although, legally, all land sales should be registered. A more complete source of transactions involving land transfers is the Village Mutations Registry—a permanent diary of all changes in land tenure. Other supplementary sources such as the regional Agro-Economic Surveys, Reserve Bank Follow-Up Surveys, and the Studies in Farm Management could be used to check, modify or interpret the registration and revenue information. In short, data sources are not lacking; all that is needed is the necessary organization to compile and present data already in the records.

One possible reason why land price data have not been compiled is that the land market has always been localized and informal. Marketing institutions have not pressured public agencies for land price service as they have for commodities. Economists, planners and some programme administrators are the most likely consumers of resource price information. Hence, the pressure for such information is largely academic, *i.e.*, weak.

LAND VALUES IN ANALYSIS

Special studies to determine the components of land values or determine the effects of various programmes on land values often require field investigation to supplement even extensive land price data collected on a continuing, but all-purpose, basis. A rare, and therefore all-the-more useful, example of how the land market can be used as a gauge of the economic effects of land reform is contained in the report by V. M. Dandekar and G. J. Khudanpur on the Working of the Bombay Tenancy Act of 1948 in the Deccan and Karnatak. Dandekar and Khudanpur analysed land sales in sample villages and supplemented their observations with data from the sub-registrar's records. From about 1,600

sales they showed changes in land values from 1948-49 to 1952-53 and analysed the provisions of the Tenancy Act for a differential impact on various classes of buyers and sellers. Contrary to the expected effect of the legislation, they observed that "the Tenancy Act had left the market in land, at any rate up to 1952-53, very much unaffected both in respect to the volume of business and in respect of its character as a free market."[9]

R. R. Mishra, observing trends in the average price of land from 1948, concluded that, in Saurashtra, "the land reforms have been responsible for the increase in land prices," but qualified his conclusion by adding that "rising prices of agricultural products also were partly responsible." Unfortunately he did not indicate the relative importance of these two influences.[10]

Another example of how land values were used to show economic change is contained in C. H. Shah's "Effects of War on Agriculture in India." Shah used land transfer prices and indebtedness as indicators of change during World War II, stating that, "Development in the farm land market.... not only reflect the relative changes in the economic conditions of the different sections of the farming community but also enable us to portray the evolving pattern of the structure of agriculture."[11] He used data from Registration Department records to supplement data he collected on a sample of villages in the Gujarat. He concluded (1) that during the World War II "the rise in land prices was out of proportion with the real value of land as determined by its profitability" and (2) that, although there was a net transfer from non-agriculturists to agriculturists, the rapid rise in land values prevented agriculturists from recovering land lost during the 1930's. In using Registration data he indicated some of their limitations, and pointed out the need to refer to the Mutation Register to obtain a more complete listing of transfer. He pointed out the improvement in the proportion of registered transactions during the period of his study, 1939-46; the per cent of registered sales of all sales rose from 51 to 65. District officials indicate that unregistered land sales now are uncommon.

A more recent example of the use of land prices to measure the impact of irrigation benefits is reported by Jha and Jha.[12] They showed significant mean differences of both land values and farm income between project area and a control area. Although perhaps somewhat excessive in claiming that their technique "could work as (a) reliable guideline for our future resource planners

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9. V. M. Dandekar and G. J. Khudanpur : *Op. cit.*, p. 69. However their extensive generalization about the effects of the Tenancy Act on the land market was based on a comparison (all years combined) of sale prices to non-cultivators and three classes of cultivators. When the authors found that "the per acre value of sales to cultivators was lower than that of sales to non-cultivators; and . . . the per acre value of sales to neighbouring cultivators were lower still," (p. 63) they restated the values in terms of multiples of revenue assessment. On the latter basis only, they concluded that the Tenancy Act had not affected the land market. Moreover, in the area of the then Bombay State which they studied, the Tenancy Act was implemented somewhat more slowly than in the rest of the State. Effects on the land market probably could not have appeared by the time their study was undertaken.

10. R. R. Mishra : *Op. cit.*, p. 131.

11. C. H. Shah : Effects of War on Agriculture in India, Ph.D. Dissertation, Bombay University, 1952, p. 274.

12. Divakar Jha and S. C. Jha, "Land Value as Measure of Primary Irrigation Benefit in Tribeni Canal," *Indian Journal of Agricultural Economics*, Vol. 17, No. 3, July-September, 1962 pp. 69-73.

in their decision to allocate investment funds towards alternative water projects,"[13] they have recognized the importance of land values as indicators of economic change. They note, for example, that "the supply of land being inelastic . . . profits in irrigated regions get capitalized largely in the form of increased land values."

The foregoing illustrations of studies using land values are significant in part because they are rare. Even these studies treated land values peripherally as an incident to another core analysis. Few studies, with land price as either a crucial dependent or independent variable, have been made. Yet knowledge of the forces influencing land prices appears useful to an understanding of many aspects of land tenure and taxation reform. For example, although much has been made of the egalitarian objective of land reform, the value of the transfer of land between and among various tenure holders and the State apparently has not been made. The performance of various land reform measures in levelling wealth and income might be better appraised if their effects were identified and expressed in value terms.

FURTHER STUDY

Possible effects of land reform on the returns to, or the prices of, land might include impacts on production and resource allocation. A reduction of the rent of land from ½ share of the crop to an equivalent of less than 1/6-share, for example, would create an incentive to use more land relative to labour in production. The "surplus" thus available to tenants might take several channels, *e.g.*, an investment in other non-land resources, greater consumption, or reduced labour input.

The possible impact of land reform and size of farm might be more precisely evaluated if land were expressed in terms of its price rather than its area. Erven Long's argument that size of farm and productivity are not, or are negatively, related might have gained strength by using value rather than acreage.[14] Land in India, after all, is extremely heterogeneous and a better idea of optimum size could perhaps be drawn from value rather than area.

The recapitalization of land, particularly by cultivators with little investment capacity, could withhold needed resources for current expenses, improvements, equipment, and livestock. Although economists have hypothesized that land sales (such as the forced sales of the Tiller's Day Act) have a depressing effect on capital formation,[15] the thesis has not been tested.

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13. *Ibid.*, p. 72. The note did little to advance what the authors stated was the purpose of the analysis, "to determine the type and size of project that will yield maximum net benefits." Neither does it contain a test of the stated thesis that the *increase* in land value is due to irrigation (they test mean differences between the project and a control area.) The note also contains some obscurities in presentation, *e.g.*, the meaning of the total figures in the tables of average values. Despite these deficiencies, the note is valuable in drawing attention to usefulness of land value in evaluating programmes in India.

14. Erven Long, "The Economic Basis of Land Reform in Underdeveloped Economies," *Land Economics*, Vol. 37, No. 2, May, 1961, pp. 113-124.

15. M. B. Deshmukh and M. P. Bhargava, "Capital Formation in Indian Agriculture," *The Indian Journal of Agricultural Economics*, Vol. 9, No. 1, March, 1954, p. 122.

Although tax reforms are being undertaken in a number of Indian States, the real effects of taxes on land values remain largely unknown.[16]

Land values have been neglected in the data provided by Central and State Statistical Agencies and in the studies of land reform and in other Government programmes. This deficiency might be overcome by encouraging

(1) development, improvement, and publication of a statistical series on land prices,[17]

(2) research on the determinants of land value and the effects of public programmes on land value.

The raw materials for such studies are available, the statistical and research institutions have the technical requirements, and the job has been done successfully in other countries. And, as Professor Dantwala wisely observed in a similar context : "there is hardly any phrase under which more sins of omission or commission are committed than under .... our conditions are different."[18]

16. The Taxation Enquiry Commission recommended land assessment changes on the basis of changes not in land prices but in the general price level. Presumably, this recommendation was made because indexes of commodity prices were known and indexes of the price of the resource being taxed was not known. Report of Taxation Enquiry Commission, 1953-54, Vol. III, *Op. cit.*, pp. 225-230.

17. See, for example, U. S. Department of Agriculture, Economic Research Service, Farm Real Estate Market Developments (A triannual bulletin).

18. M. L. Dantwala, "The Basic Approach to Land Reforms," *The Indian Journal of Agricultural Economics*, Vol. 8, No. 1, March, 1953, p. 98. This insightful article is notable for its discussion of the objectives of land reform.