

BOOK REVIEWS

Palanpur: The Economy of an Indian Village by C. J. Bliss and N. H. Stern, Oxford, Clarendon Press, 1982, xi + 340 pp.

I

This is an empirical study of the rural economy in Palanpur, a village in the Moradabad District of Uttar Pradesh, northern India.

Village economies in the developing world are so surprisingly diverse that economic analysis based on existing theory is often impossible. Thus, great care is needed when deriving general implications from the economic analyses that use aggregate data, and there is an urgent need for a greater number of case studies. Only a few economists have made thorough village studies of this kind and Bliss and Stern are part of that select group.

Palanpur: The Economy of an Indian Village examines some of the hypotheses in agricultural and developmental economics through case study and provides a basis for further development of theory in this field. Bliss and Stern, both economic theoreticians, complete their task successfully by examining a number of extremely interesting determinations of fact related to current topics in agricultural economics.

II

Palanpur's most important farm crop is wheat. Most farmers use high-yielding varieties. The influence of the caste system is relatively minor here compared to what it is in other Indian villages. Distribution of land and income is at a relative high level of equality, although the peculiar historical and geographical factors of the village are not very different from other surrounding villages.

Bliss and Stern's description of the characteristics of village economy matches those characteristics to current topics in agricultural economics. The topics are: (1) arguments on the characteristics of landlord-tenant relations in the Indian village, which are somewhat akin to the Japanese debate on "feudal heritage"; (2) land productivity and farm size; (3) optimum production behavior under conditions of uncertainty; (4) the efficiency wage hypothesis; and (5) the results of the Green Revolution.

In summary, Bliss and Stern's principal observations and conclusions are:

(1) Although market structures in Palanpur cannot be adequately described by the concepts of competition and oligopoly, individual economic agents behave generally as price-takers except in the rental market for land and buffaloes. The kind of exploitative transactions based on semi-feudal landlord-tenant relations suggested by Bhaduri are uncommon. The efficiency wage hypothesis proposed by J. E. Stiglitz does not seem applicable to this village, where real wages vary with the level of demand (Chap. 4).

(2) The lack of a market for bullocks encourages some landowners who do not own these animals to rent their land for cultivation to tenants who do. Bliss and

Stern interpret this as a method of stock adjustment under great difficulties of short-term transfer of fixed factors (such as bullocks and family labor) due to various transaction costs.

The market in Palanpur is not, however, the definitely interlinked factor market that P. K. Bardhan and A. Rudra, among others, have claimed it to be, nor is it one of semi-feudal relations between landlords and tenants as Bhaduri has suggested. Tenants provide landlords with labor and credit as deferred payment for some of the input costs accrued by landlords until the harvest, at which time rent is reduced by relevant amounts (Chaps. 4 and 5).

(3) About 20 per cent of Palanpur's cultivated land is sharecropped. No statistically significant difference is found in productivity between sharecropped and owner-cultivated land.

Many hypotheses have been formulated to explain why sharecropping is preferred and why no statistically significant differences in productivity are found between the two types of farming. Bliss and Stern's tentative conclusion is that the Cheung theory most appropriately explains the phenomenon. Their conclusion is based on the fact that landlords in Palanpur usually supervise the production behavior of their tenants and that the cost-sharing contract between landlord and tenant (for fertilizer and irrigation) is fully implemented. Thus, the system does not make share tenancy contract unpreferable to other types in terms of land productivity or transaction cost. Another reason, as detailed under the next heading, is that the village's unstable agricultural production encourages farm households to disperse risk (Chaps. 5 and 8).

(4) Calculation of the marginal productivity of fertilizer based on a production function analysis of wheat indicates that marginal productivity is two to three times greater than fertilizer purchase price. In view of the prevalent production uncertainty and degree of village poverty, this can be effectively explained by the hypothesis of expected utility maximization. Neither marketing costs, post-harvest transportation costs nor interest payment on loans are sufficient factors for explanation.

(5) Many empirical studies suggest that "the smaller the farm size, the higher the productivity per acre."¹ This is not an observable tendency in Palanpur, however, and the larger farms are more intensive users of fertilizer. The lack of such an observation is consistent with the hypothetical framework of expected utility maximization when increasing absolute risk aversion (Chaps. 6 and 8).

(6) In general, it seems easier for larger farmers with greater financial ability to gain access to high-yield seed varieties and to benefit from their introduction. However, the correlation between the economic wealth of individual households and wheat production input (fertilizer and seed) in Palanpur is negative and there is thus no confirmation for the proposition that the Green Revolution benefited the larger farmer (Chap. 8).

III

Discussing market structures and agricultural problems in an Indian village by testing existing economic theory in the actual situation is much more timely than direct application of such theories to the situation. Furthermore, I respect Bliss and Stern

¹ See A. K. Sen, *Employment, Technology and Development* (London: Oxford University Press, 1975) and R. A. Berry and W. Cline, *Agrarian Structure and Productivity in Developing Countries* (Baltimore and London: Johns Hopkins University Press, 1979), among others.

very much for being able to effectively overcome the various difficulties of village field surveys in developing countries and for skillfully presenting a systematic and ambitious work. I would like, however, to mention a few points in their argument on tenancy and uncertainty (where the greatest emphasis of this study lies) that I find difficult to accept.

First, albeit a tentative hypothesis, Bliss and Stern state that the tenancy form, such as share-tenancy, is determined mainly by its risk sharing function, and they cite as supporting evidence the good supervision and enforcement of the tenancy contract. However, as these are points conceded by Bliss and Stern, landlords do not completely supervise inputs, the cost of which is not shared, nor can the landlords regard the qualities of their tenants as homogeneous because the productive ability of each tenant does in fact vary. It follows then that the applicability of the Cheung theory to Palanpur is questionable, an important assumption of that theory being the existence of a contract market.

Second, Bliss and Stern seem to take the view that the land/bullock market is maintained in equilibrium, and that equilibrium is adjusted by the rationing process to which bullock possession is a kind of entrance ticket. However, in my thinking it is not clear which is the better interpretation: (1) that there is a competitive contract market of ticket-holding landlords and tenants and that competitive tenancy agreements are concluded within the theoretical framework; or (2) that implicit agreement regarding land transactions is established within the paired network of relations between landlord and tenant based on personal confidence. If the former interpretation applies, then the situation can be satisfactorily understood in the context of the principal-agent mode as used by, among others, A. Braverman and J. E. Stiglitz, and P. K. Mitra.² The second interpretation requires a framework of repeated games, where tenants are considered heterogeneous and landlords and tenants have a chance to revise contracts based on their evaluation of what occurred in the preceding period.³ I am inclined to favor this view. In fact, Bliss and Stern state in other sections that landlords have incentives to actively seek better tenants while tenants have incentives to obtain and retain good reputation.

Third, Bliss and Stern use the hypothesis of expected utility maximization to explain various phenomena observed in production activity and at the same time point to the fact that no law of diminishing returns for fertilizer can be observed. Can utility be maximized at all when no productive input undergoes diminishing returns? So long as unlimited amounts of fertilizer are available at a given price, the answer seems to be no. Therefore the reason why the amount of fertilizer available are limited should be shown in more detail.

Last, I wish Bliss and Stern would have described the actual landlord-tenant negotiation process. Knowledge on the actualities of landlord-tenant negotiations is essential to an analysis of village market structure but has yet to be provided.

IV

Bliss and Stern are probably well aware of these points of contention and the room

² See A. Braverman and J. E. Stiglitz, "Sharecropping and the Interlinking of Agrarian Markets," *American Economic Review*, Vol. 72, No. 4 (September 1982) and P. K. Mitra, "A Theory of Interlinked Rural Transactions," *Journal of Public Economics*, Vol. 20, No. 2 (March 1983), among others.

³ See P. K. Mitra, "A Theory," p. 184.

for improvement. I point them out in hope that their explicit statement may aid in solution, thus leading to further formulations of new theories with wider applicability. Bliss and Stern's contribution to development theory is evident in the fact that it is frequently cited by other authors on tenancy system and agricultural development. The importance of the element of uncertainty is convincingly demonstrated and suggests a need to reexamine many of the empirical studies that are dependent on the production function and do not give due consideration to uncertainty.

The merits of the book easily surpass any objections I have raised. The influence it will exert on the development of economic theory will compensate Bliss and Stern for the hardship they have gone through in completing an important work.

(Seiichi Fukui)