

Supervision charges:—

1 supervisor	Rs. 75	} per month for 300 acres.	...	Rs.	13 5 0
3 fieldmen	Rs. 75				
6 maistires	Rs. 72				

Miscellaneous:—

Watchmen	...	...	...	Rs.	3 0 0
Pests and diseases control	...	...	...	Rs.	5 0 0
				Total Rs.	401 9 0
				or Rs.	400 0 0

40 tons crop valued @ Rs. 13 per ton.	Rs.	520	
Expenditure.	Rs.	400	
	Profit.	Rs.	120 per acre.

For Ekasali (12 months crop) the margin of profit will be reduced to about Rs. 70 while for ratoon it will be Rs. 50 nearly.

Note. All the above calculations are done in terms of O. S. Rupees. 116 O S. Rupees are equivalent to Rs. 100 in British Indian currency.

SELECTED ARTICLE

Economic Factors in Agricultural Development.*

By K. C. RAMAKRISHNAN, M. A.

(Continued from Vol. xxix, p. 197).

III. Effects of Land Tenure and Taxation. Conditions of tenure and taxation of land play an important part in promoting or impeding agricultural improvement. For more than a century in Great Britain leadership in farming was in the hands of landlords who had enlarged and enclosed their estates by buying off the numerous strips of yeoman farmers, often with the profits made in trade and invested capital in long-term improvements like drainage works and farm buildings and did pioneer work in the cultivation of better crops and the breeding of pedigree stock. It is the success of these ventures that made Britain the pioneer of modern agriculture, as well as of large-scale manufactures. This period of prosperity lasted for over a century—from 1750 to 1870. After 1870, however, American competition killed cereal farming; there was a continuous fall in rents, while the cost of cultivation, particularly wages, increased. Arable farming gave place to grass farming and stock-raising. Industries were more paying than agriculture. Industrial magnates bought land more for its amenities and social prestige than for its profits as a farm enterprise or for the love of agricultural research. Research indeed passed into the hands of several specialists and it was beyond the capacity of any landlord to set himself up as a leader in science or technique. Continuous increase in income-tax and death duties led to the break-up of big estates and many old farmers became, in the first thirty years of this century, occupying owners with the help of the State. But a decade of falling prices has impoverished these owners too, who have little capital left to work their farms. Small holdings in certain specialised lines of agriculture like dairying, fruit culture and vegetables are still favoured, but for staple cereals large scale mechanised farming with State ownership of land and control of cultivation is advocated.

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It is strange that when such radical changes have been going on in Britain for many years now, so many British administrators coming over to India even in recent years should harp upon the British tradition of landlord-leadership in scientific agriculture and appeal to the landed aristocracy in India to give a lead in agricultural improvement.

We can understand Lord Cornwallis, the author of the Permanent Settlement in 1793, expressing the hope that the zamindars (in Bengal) would exert themselves to spread and improve cultivation in their estates, of which they had just then been made proprietors and assured immunity from enhancement of *poishkash* which they had agreed to pay. He had evidently in his mind the contemporary English 'improving landlord.' Some zamindars no doubt had the jungles cleared, canals cut, tanks dug, and temples and ghats built. The area of cultivation was extended. But there were few zamindars either in Bengal or in other provinces, where the Permanent Settlement was soon after introduced, who took any active interest in cultivation, even on their own home farms, of the better types of crops with better implements and fertilisers or in the improvement of livestock, the breeding and rearing of which were carried on by backward tribes. Most of the zamindars went on rack-renting with the growing competition for land, using their power to evict tenants as a lever to enhance the rents. Even after the enactment of tenancy laws the provisions for the commutation of kind rents, for the occupation of old wastes, and the summary recovery of dues were all abused to such an extent that tenants have been crying for reduction of rates to the levels prevailing in neighbouring ryotwari areas, which are themselves quite high.

The abuse of the system reached its worst in Bengal, where most of the zamindars became absentee landlords and a series of intermediate tenure-holders with rights of their own have sprung up between the zamindars and the actual tillers of the soil. The ryots in other zamindari tracts too are not all cultivators; many of them let out their lands, of which they have now occupancy rights, to impudiculous labourers for a fixed or sharing rental. Such a dissipation of interests in cultivation is not conducive to any improvement in agriculture.

Nor are all the ryots in ryotwari areas cultivating their holdings. Big as well as small ryots have mostly fragmental holdings; little or no attempt is made to consolidate and improve them; and the different fragments are generally sub-leased to different petty tenants-at-will, most of whom live on the margin of subsistence. Those who cultivate on the *varan* or crop-sharing tenancy system—analogous to the metayage in Europe—either as tenants of zamindars or of ryots have the least incentive to effecting any improvement. Where, however, fixed cash leases are the rule, as in the case of valuable commercial crops, and the tenants are men of resources and spirit of enterprise, they invest capital in the purchase of better seeds and manures. Except in the case of tree crops, as in Malabar, such tenants are not anxious to stick to the cultivation of particular pieces of land. They move from one land to another paying rents according to soil, irrigation and market facilities.

The Royal Commission on Agriculture pointed out incidentally—land tenure was outside the terms of reference—that large scale farming 'though open to many is practised by few'. Among the reasons given, tenancy legislation, the primary object of which was to confer security of tenure on ryots in the estates, is said to have rendered it difficult for large land-holders to obtain unrestricted possession of compact blocks of land. But we wonder if many of them are yearning to practise scientific farming for the benefit of themselves and their ryots, after missing splendid opportunities to set up model home farms in the past.

Sir John Russell reviewing the progress of agricultural research and its application in India in 1937 lamented the lack of agricultural aristocracy

unalogous to the British landlords or the large farmers, "rooted in the soil and ready to try any improvements suggested by experimental stations and anxious themselves to devise improvements, which are sometimes better than those of the experimental stations". Whatever the past might have been, recent investigations like those of Astor and Rowntree tell a different and distressing tale of large farmers in Britain.

In respect of dairy industry again. Mr. F. Ware, an authority on animal husbandry, has suggested that "the wealthy land-owning classes of the country might give their support by maintaining high grade herds of pure bred indigenous dairy cattle and by supplying approved sires for use in the villages."

Agricultural reform in other European countries took a different turn from that in England. After the Napoleonic wars, measures were taken to abolish serfdom on land in most of the Western European countries; and the Code Napoleon established equal inheritance of land among all the sons of a father. With the growth in population in the 19th century holdings naturally tended to become smaller in size. There were few landlords left of the type of English landlords, except in East Prussia. In fact the State offered little encouragement for the growth of big estates, while steps were taken to break them up and settle the workers as proprietors. Consolidation of fragmented holdings was effected by permissive legislation in most countries and the subdivision of holdings below the minimum economic unit was prevented by law. There was indeed little of the worship of the large estate as in England, though the economies of large-scale production and marketing were before long appreciated. Such economies were effectively realised by the variety of co-operative organisations, most of which were inspired by the spur of necessity to meet the American competition. It was found that in respect of production in certain lines, small holdings were by no means inferior to large ones, and much of the land was devoted to such specialities. The processing and marketing of such crops demanded more of co-operative effort, and hence it is that all over Western and Northern Europe, co-operation has been treated as a necessary complement to peasant proprietorship. For instance, in Denmark it is not the big farmer that is reputed to breed and rear good cows. More than 90 per cent of the herds consist of less than 15 milch cows each. Though Denmark took up the development of dairy breeds long after England, the red Danish cow is not inferior to any English breed in respect of yield of milk and butter fat. This has been achieved by the co-operation of the State department and the peasant co-operatives for milk recording etc. Progress has been achieved in smaller lines—in the production of oats, barley and potatoes by Belgian peasants and in the raising of wheat, fruits and vegetables by the Dutch peasants almost entirely by their multifarious co-operative organisations. Scandinavian and Baltic States achieved equally remarkable progress by co-operative methods. An agrarian reform amounting to a revolution was effected in Central and Eastern States of Europe after the last war by the conferring of ownership rights on cultivators and by the break-up of big estates, which were not fully compensated; and even here co-operation was called in to the aid of the new peasant proprietors.

With such splendid models before them of progress achieved by peasants co-operatively organised, we wonder why the British authorities should still go on appealing to effete landlords instead of earnestly helping to build up a sound, all round, co-operative movement, which has been the greatest instrument of agricultural progress all over Europe. Perhaps as Mr. L. D. Gammans of the Malayan Civil Service says: "The Englishman in the East is probably more ignorant of co-operation than most other Europeans. With the exception of

consumers' store, which does not appeal to any great extent to the educated classes from which the British official is largely recruited co-operation in Great Britain is little developed. The ordinary Englishman is apt to know little of its other possibilities and is less conversant with the co-operative organisation of agriculture than the German, the Dutchman, or the Dane."

Though peasant proprietorship is on the whole the best system of tenure in India where capitalistic or socialistic large scale farming is out of the question on account of the nature of crops, the scarcity of land and the abundance of labour, it is neither possible nor desirable to do away with tenant-farming. There are good cultivators who do not like to have their little capital locked up in the purchase of land, which is better used in working the farms that they take up for lease from time to time. An impartial tribunal that will fix up fair rents and compensate for loss for any premature eviction, combined with facilities for co-operative credit, supply and sale would for them be ample substitutes for the 'magic of property' in land.

In fact co-operative societies may be organised by tenants who can take on lease a large piece of land or several pieces from one or more landlords. Joint farming may be tried or at least an attempt may be made to consolidate cultivation units and each member may take charge of one unit. The bargaining power of such co-operative ventures will be greater than that of petty individual tenants competing among themselves. The advantage may not be on the side of tenants alone. Many an absentee landlord and institution owning land, not to speak of reasonable local landlords, would be pleased to deal with a well-knit co-operative organisation than with a number of poor tenants. Agricultural graduates can play a great part if they can organise and manage such societies taking on lease the lands of temples, endowed charities and institutions and the lands that have come into the hands of co-operative banks, insurance companies, etc., even as their confreres in America have organised themselves into agricultural management companies for a similar purpose. They can serve as managers and share the profits of the enterprise with all the working members. They can set a higher standard of cultivation and reduce the evils of a recklessly competitive and wasteful tenancy system.

Land revenue in ryotwari areas, assessed on the theory of State landlordism and revised only in 30 years, was felt to be a heavy burden even in periods of rising prices. It is certainly oppressive in a period of falling prices and intolerable in years of drought, when remissions are by no means liberal. At any rate the rigidity of the rate with no automatic provision for remission in years of scarcity of rains, or of fall in prices, is not conducive to the investment of capital in agricultural improvements except of the kind, like sinking of wells for which provision has been specially made for exemption from enhancement of rates. This exemption has surely given a great fillip to the digging of wells and the mechanical lifting of water in some districts. The exemption need not indeed be permanent, but may be reduced to a period of 30 or 40 years as in the Punjab, without detriment to improvements.

The comparatively well-off ryots dissipate their extra earnings got in years of better yield or higher prices, or divert them to the purchase of more land rather than invest them in any substantial improvements on the land they already have. Agricultural experts should look for such opportunities and induce such earnings to be invested in improvement of land or purchase of plant like the water-lift, tractor-plough, cane-crusher etc.

Land revenue is said to be a tax on land and not on persons and is being imposed on all alike. It is a regressive tax pressing unduly on the poor, who have in good years little left to spend on improvements. Taxation of higher

agricultural incomes, over and above a reduced flat rate of revenue, is bound to be introduced in all provinces, as it has already been done in Bihar and Assam. With a view to encourage greater productivity on land, concessions may be shown for improvers of land and crops by making liberal allowances for expenditure on improvements of approved types.

The existing system of taxation of water is not scientific and it leads to a lot of waste of water and injury to the land. But volumetric taxation of water would be costly to administer without a system of co-operative distribution of water among the users. Exemption of charges now granted for the use of water in growing green manure crops may well be extended to use of water for raising fodder crops in areas with a deficiency of fodder. A part of the local land cesses now spent by local bodies on a variety of objects may be earmarked for agricultural improvements by the organisation of propaganda, demonstration and systematic instruction by itinerant teachers employed by District Boards, even as County Councils are doing in Great Britain.

Export duties on manurial resources like oilseed, bones and fish have been time and again recommended by agricultural experts with a view to bring down their prices and induce greater use within the country, so as to conserve soil fertility and produce better yields. Such duties might in the first instance hit producers of such materials, though the merchants would be hit more; but in the long run they would stand to gain by greater demand within the country and the reduction of middlemen's profits in internal trade.

Import duties on competing foreign produce with a view to stabilise the prices of home produce have been freely resorted to in almost all European countries. But for over a century the free trade policy of Great Britain has stood in the way of any similar protection to her crops, and incidentally to our crops too even when the need has been felt for it in recent years. South Indian producers, having to incur greater costs of cultivation on older soils and irrigated lands, have been crying in vain for protection from Burma and Siam rain-fed rice and Ceylon plantation copra. The greatest and the most successful departure from free trade tradition has been made in the case of sugar—though more in the interests of manufacturers than of cultivators—and this accounts for the sudden expansion of sugarcane area even in South India, which really is better fitted to grow cane than North India, but suffers from want of factories to absorb the canes grown. An extension of such protection to other crops may be opposed on the score of the poverty of consumers. There is also the danger that it may remove an important spur to improvement; for the temptation to go to sleep behind the tariff wall is greater in this country.

This course of lectures, it is hoped, has brought out the dominant importance of the economic factors in the development of agriculture, which educational and research workers will have to take into account. Nowhere has the importance of agricultural economics been so well recognised as in the United States. It would, therefore, be fitting to conclude this course with an extract from a statement made twenty years ago by H. C. Wallace, the famous Secretary of Agriculture, who organised the Bureau of Agricultural Economics.

"Help in their economic problems is now the most urgent need of our farmers. This is not to say that the Department is losing sight of production matters. The farmer needs all the help in his production problems that the Departments of Agriculture, Colleges and experimental stations can give him; but the need of the most importance now is the development of an entirely new realm of organized knowledge bearing upon the economic factors of agriculture, looking towards cheaper production, improved methods of distribution, and the enlargement of markets, all to the end that the prices the farmer receives shall be more fairly related to his cost of production."