

Our attention has been confined in this paper mainly to the soil and its water requirements and to show how an examination in the laboratory has helped us to decide on the quantity and frequency of irrigation. A lot more work will have to be done on the chemical analysis of the soil before any pronouncement can be made as regards suitable crops to be grown and the amount of plant food that is available in the soil. Generally speaking, however, with the work done so far, it is possible to just indicate in a very rough manner what kind of future cropping might make the tract more prosperous. Wet crops like paddy, betel and even sugarcane and plantain seem to be out of the question. The present dry crops of the tract might very profitably be replaced by irrigated varieties of the same. Yet another possible direction of future cropping might lie in the raising of orchards like pomegranate, oranges and limes which will get the necessary amount of water from the new channel and get their drainage problems automatically solved by the texture of the soil.

CERTAIN ASPECTS OF THE IRRIGATION POLICY OF THE MADRAS GOVERNMENT.

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Contribution for repairs to Irrigation Works from Ryotwari Land-holders. The Government's obligation to repair and maintain Irrigation Works serving ryotwari lands has been unquestioned till recently. But under G. O. 773 dated 2-5-33 and an order of the Board of Revenue passed in pursuance of the same (published in answer to question No. 711 in the local Legislative Council on 27-2-1934), this well accepted feature of Ryotwari administration has been substantially modified.

The genesis of the order is somewhat strange. An officer of the Madras Government was asked to enquire and report on the question of retrenchment of Land Revenue Establishment. He discovered in the course of his investigations, that the state in this country "has perhaps too generously assumed" the obligation to repair Irrigation Works and suggested that the ryots under Minor Irrigation Works in charge of the Revenue Department may be required to bear their share of this obligation in the shape of payment of contributions. The Government accepted the officer's suggestions without any discussion and asked the Board of Revenue to implement the same by suitable instructions to District Collectors. The Board welcomed the new source of income and extended the principle to all classes of Irrigation Works, major and minor. It issued a blank cheque to the District Collectors to decide the proportion of the costs of repairs to be recovered from the ayacutdars. The ryot's share may be any fraction less than the whole. Four illustrative cases calling for contribution

are given by the Board such as the repair of a sluice or the revetment with stone of an earthen bund or provision of a new masonry head-sluice for a channel etc. It will be difficult to imagine any case of a repair that cannot be said to be analogous to one or other of these illustrations. The four given examples are fair specimens of all cases of repair that are likely to occur. Thus, the G. O. and the Board's order raise a general question as to the state's duty to repair Ryotwari Irrigation Works at its own cost.

The theory that the State has "too generously assumed" the duty, itself admits the fact of assumption *ex-hypothesi*. It has also got high authority behind it. Under the Irrigation Cess Act, ryotwari wet land is exempt from cess though the Irrigation Work serving the same might be repaired by the Government at heavy cost. What cannot be claimed directly as cess cannot be demanded indirectly as a contribution. The Government's obligation towards ryotwari landholders cannot be on a lower level than that of a Zemindar towards his ryots. The Zemindar is under an absolute obligation under Sections 138 and 139 of the Estates Land Act which only reproduces the common law of the country, to repair Irrigation Works. It cannot be gainsaid that the state's duty to repair and maintain Irrigation Works is as much a part of the ryotwari tenure as its right to a share of the net income. It may also be added that the Government's half share of the net income from ryotwari lands brings Rs. 6½ crores to the Exchequer and its total Irrigation Budget (non-capital) serving not only ryotwari but all other interests as well, comes up only to about Rs. 1 crore.

An additional ground for contribution is put forward in the Board's order, viz., that there is a saving to the ryot, of Kudimaramat labour as in the case of a stone-revetment of tank bund on account of repairs effected by Government. The following remarks of the Indian Irrigation Commission 1901-3 (See part II para 227 of the Report) furnish a complete answer to this plea. "The value of the Kudimaramat Work is indeed small and if the question of cost only were to be considered, Government might well afford to bear it". The institution of Kudimaramat which by the way has been found by the commission to have almost ceased to exist, cannot be converted into a source of additional taxation.

The theory of contribution from the whole body of ayacutdars under an Irrigation Work is opposed to the principle of Ryotwari tenure, under which the State deals directly with the ryot. The ryotwari system has broken up the corporate life of the old village community which is now only a memory of the past. In the absence of a suitable agency for common action among the ayacutdars, the demand for contribution cannot be effectively met or equitably distributed among the ryots.

Thus the novel claim underlying the recent order of Government violates a well-settled and fundamental obligation of the State under Ryotwari Tenure. It is an additional hardship for the ryotwari landholder in this period of economic trouble. It is also unworkable.

Suspension of the Tank Restoration Scheme Investigations since 1931. An important feature of the Irrigation Policy of the Government relates to a scheme of "Tank Restoration" which was in charge of a special section of the Irrigation Department. The T. R. S. Scheme was started in 1883 on the advice of the Famine Commission of 1878 which recommended a systematic treatment of the "minor works" which were recognised to be below their state of full efficiency and incapable of effecting their proper amount of irrigation. The Irrigation Commission of 1901-3 made a full examination of the progress of the work till then and "strongly recommended" that the work of tank restoration should be more vigorously prosecuted and that the grants for maintenance of minor works should be increased until it has been completed "within 15 years". Double the period has expired since then. The work is still unfinished. In the meantime, the retrenchment axe has fallen upon it in December 1931. In spite of numerous representations, the Government refuse to lift the axe. The scheme is now under an order of indefinite suspension.

The large Irrigation interests served by the scheme as well as its financial bearing do not appear to have been properly appreciated by the Government of Madras in their true perspective.

The "minor works" which are the beneficiaries under the scheme are as many as 35,708 serving an area of 26 lakhs of acres forming 40% of the total area under State Irrigation Works in the Presidency. The owners of this large area, are the millions of ryotwari landholders in the Presidency who are among the worst victims of the present economic depression.

The annual expenditure to Government on account of the scheme is only Rs. 4 lakhs (vide answer to question No. 714 dated 27--2--1934 in the Legislative Council). The revenue accruing from the lands under "minor works" covered by the scheme is Rs. 140 lakhs. An expenditure of less than 3% of the revenue for the conservation and restoration of the Irrigation Works yielding the same, might well have been spared the application of the retrenchment axe.

The Irrigation Commission recommended an annual expenditure of Rs. 13 lakhs for the investigation and restoration of the minor works out of the then revenue of Rs. 78 lakhs yielded by the lands under the same. The proposed expenditure forms 16 $\frac{2}{3}$ % of the revenue as against the present actual expenditure of 3% of the revenue.

The total cost of the remaining T. R. S. work is estimated by Government at Rs. 38 lakhs on one basis and Rs. 63 lakhs on another

basis. (Vide Administration report P. W. D. 1930-31). If it is taken roughly at a central figure of Rs. 50 lakhs, a six years' programme may be adopted for completing the work begun in 1883. An annual allotment of Rs. 8 lakhs for 6 years out of an annual revenue of Rs. 140 lakhs from the lands concerned cannot be said to be an extravagant request.

Such a programme, while it is urgently called for in the interests of ryotwari landholders will also help in a solution though partial of the problem of Educated and other un-employment in the Presidency.

Kudimaramat in Ryotwari Villages. The question of Kudimaramat or ryot's share of the obligation to maintain Irrigation Works has been raised from time to time during the last 60 years; but a true and sound policy for administration is yet to be laid down. The working of the institution was examined by the Indian Irrigation Commission of 1901-3 and according to the Commission "Kudimaramat has almost ceased to exist". (Vide para 269 of Report Part II.) But the Madras Government has built an elaborate edifice of obligations (Vide Board's Standing Order No. 86 paras 5 and 6) based on the assumption that the institution is still alive and can be trusted to function properly. It rests on a theory of collective responsibility for the maintenance of Irrigation Works in the whole body of ryots holding lands under the same. It is a relic of the old village communal life. Unfortunately, the ryotwari settlement with individual ryots has cut at the root of corporate life in villages. The ryots called upon to perform their Kudimaramat obligations feel helpless in the absence of the machinery and resources for joint action that their fore-fathers commanded. So, the problem is one of reviving an ancient but defunct institution.

Firstly, the extent and scope of the Kudimaramat obligation have to be clearly defined, as recommended by the Irrigation Commission. Secondly, a suitable method of revival of the institution has to be devised.

The principle and scope of Kudimaramat have been expressed by the Irrigation Commission in the following terms:— "Much is not required; merely the attention that will prevent rapid deterioration—the stitch in time that will save nine. The repairs are all petty works. The value of the work done is indeed small and if the question of cost only were to be considered, the Government might have very well afforded to bear it; but the point is, that the work is so petty and so scattered that such repairs cannot be carried out properly by any departmental agency". Kudimaramat is not a ground for shifting on to the ryot the responsibility for any substantial repairs. It is not among its primary objects to save expenditure for the Government.

When floods occur and breach canal or tank bunds, temporary ring-bunds have to be put up in front of the breached spots pending

the permanent restoration of the bunds. The Government throws this duty on the ryots as Kudimaramat. But in cases where the cost even of a temporary ring-bund as frequently happens is substantial amounting to several hundreds of rupees or the Irrigation work concerned is a long canal serving several villages, the ryots have neither the resources nor the machinery to cope with such a situation. A costly ring-bund for a big breach does not come within the principle of the "petty stitch in time" enunciated by the Irrigation Commission. The commission has also recognised the difficulty of enforcing Kudimaramat in the case of channels serving more than one village. But in the absence of a satisfactory solution of the problem binding on both the Government and the ryot, every big flood brings in its train a crop of such controversies.

The most important and vital of the whole group of problems raised by Kudimaramat is the question of devising a suitable agency for performing its duties. There is no evidence so far that the Government has in the recent past ever addressed itself to this problem in spite of the recommendation of the Irrigation Commission. Kudimaramat obligation is a corporate duty placed on all the ayacutdars under an Irrigation Work. Unless a suitable machinery is created for doing the corporate work, it will be futile to expect that the obligation will be properly discharged. A small committee elected by the ayacutdars of a tank with necessary provisions for an efficient executive and control, supervision and guidance may perhaps be expected to shoulder this burden. The question of finance also has to be considered. The tank fishery will be an appropriate and sufficient source of income. It is now in the hands of Local Boards in some cases. In many others, the fisheries are in the hands of some leading ryots on behalf of the rest and there are numerous complaints of mismanagement and misappropriation of such fishery rents. In too many cases there has been civil and criminal litigation in respect of the fishery rent.

Thus, if Kudimaramat is to be revived as it must be in the interests of the ryots as well as the Government, (1) its scope has to be defined clearly, (2) a suitable agency has to be created for performing its functions and (3) the question of finance has to be settled.

* The editor does not hold himself responsible for the opinions expressed by the contributors.

IMPRESSION OF THE II YEAR TOUR

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A long educational tour is one of the many attractions of the II year, and we were looking forward eagerly to such a tour and lo! it started on the 4th of January. Visiting district after district, we were a happy party seeking knowledge from those "toilers of the soil"