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REPORT

OF THE

COMMITTEE ON DEVELOPMENT

AND

WELFARE SERVICES

1940

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REPORT

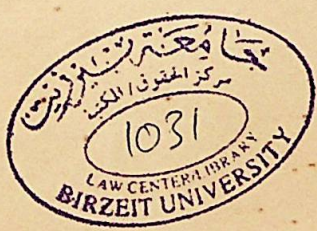
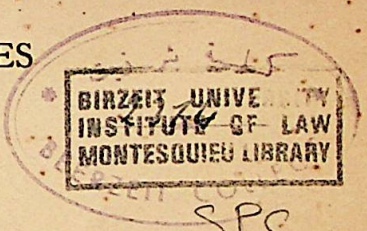
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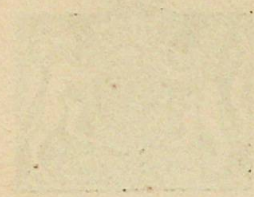
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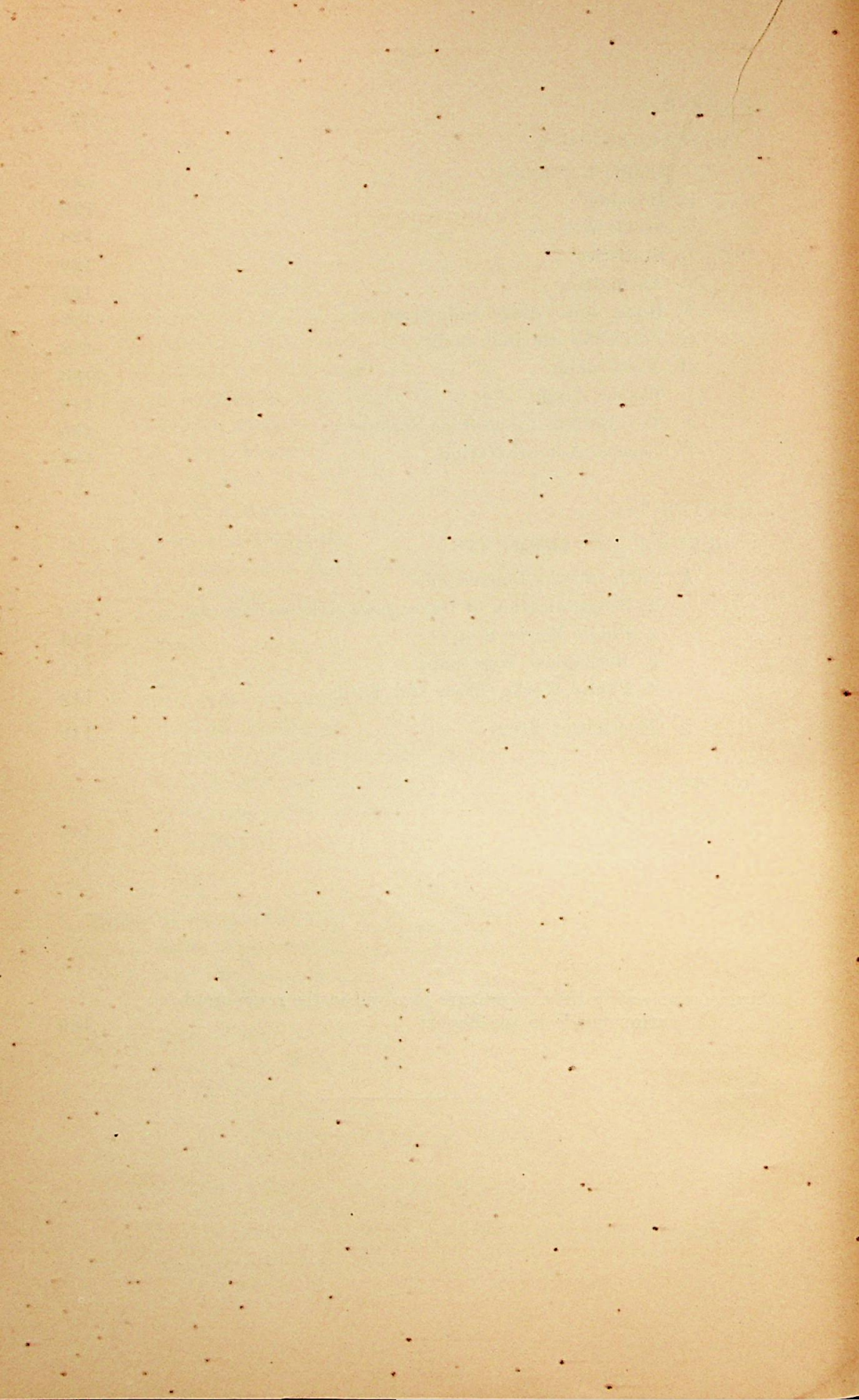
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CHAPTER I.

INTRODUCTORY.

Our Committee was appointed in the Chief Secretary's Circular No. 21, dated the 24th February, 1940, its function being to prepare a well co-ordinated scheme for development and welfare services in Palestine for submission to His Majesty's Government, with a view to provision being made for expenditure on such services from the Colonial Development Fund as reconstituted.

2. It was clear from the outset that the initiation of any extensive programme of development would necessitate a considerable expansion of the departments mainly concerned, the normal departmental organization forming the nucleus from which such expansion would take place. There are, however, certain departments in Palestine in which even this nucleus is no longer available. Owing to the disturbances and on financial grounds, the departments in question have been reduced in strength to such an extent that, far from being in a position to expand, they are unable to discharge, with that degree of efficiency which might reasonably be expected of them, even those day to day duties which now fall to their lot. There are further certain departments which were organized immediately before or during the disturbances which have never been provided with the staff necessary to enable them to perform the functions for which, in fact, they were created.

3. Consequently, in addressing Heads of Departments and District Commissioners on the 12th March, 1940, we asked them to submit their recommendations where necessary under two heads, detailing, on the one hand, the expenditure necessary for the resuscitation of their departmental staffs to normal strength and, on the other, that required for new works and activities such as might suitably be financed from the new Colonial Development Fund.

4. The replies which we received to this communication demonstrated the extent to which the services rendered by the various departments of Government fall short of the reasonable requirements of the country. No amount which was likely to be available from the fund would go any appreciable distance towards remedying the deficiencies disclosed. In the circumstances, it seemed to us that we could not properly discharge our task by merely selecting a work or activity here or there and recommending that it should be financed from the fund. Any interest which a report on these lines might have had would have lain not in the short list of works so to be financed but in the complementary con-

clusion that a far longer list of activities, of practically equal importance and in many cases vital to the development of the country, must be abandoned as beyond the power of Government to undertake. More than the amount likely to be available from the fund would have to be spent on education alone in order to rectify the deficiencies in the present system which were stigmatised in paragraph 13 of Chapter XVI of the Royal Commission's Report as 'regrettable' and 'deplorable'. The whole amount could be spent on essential agricultural and irrigation development, leaving nothing for education, public health, land settlement, forests and the like. The small portion of the requirements of each which could be financed if the amount were divided up would undoubtedly be welcome but would have only an insignificant effect on development as a whole.

5. We therefore felt that the problem should be approached from another angle. What seemed to us to be needed in the first instance was a review of the activities of Government as a whole and the preparation of an ordered programme of development, a programme which, while excluding anything in the nature of 'luxury' services, would include all those which the Government of a country such as Palestine should, in our opinion, be in a position to undertake. Only when such a programme had been formulated would it, we considered, be possible to assess to what extent expenditure was necessary and to what extent external assistance would be required.

6. In the following chapters of this Report we set out such a programme, framed after consultation with Heads of Departments and District Commissioners. We desire to express our obligations to these officers for the large amount of labour which they have given to the preparation of the careful and detailed memoranda which they submitted and for the ready assistance which we have invariably received from them both in the course of interviews and whenever we have had occasion to call upon them for supplementary information.

CHAPTER II.

AGRICULTURE.

A. GENERAL.

Few departments have suffered so severely from the results of the recent disturbances as has the Department of Agriculture and Fisheries. Even prior to 1936, the rapid agricultural development of Palestine had outpaced the corresponding development of the department. The demands which at that time were made upon it and the functions which it was expected to fulfil already exceeded the capacity of its establishment and resources. The disturbances put a sudden check on the department's work. Its officers were for the most part unable to tour about the country, and one after another its various out-stations were either destroyed by saboteurs or closed for reasons of economy. Today, of fifteen agricultural and horticultural stations only six remain; of ten district poultry stations only one. With this enforced cessation of activity and with the pressing need for retrenchment in all branches of Government work, staff was progressively reduced and posts falling vacant were not refilled. In the result, the expenditure on personal emoluments fell from £P.76,467 in the estimates for 1936-37 to £P.66,008 in the estimates for 1939-40. The expenditure of the department otherwise than on staff was drastically curtailed during the same period.

2. The Department of Agriculture and Fisheries is divided into a number of subsidiary services, dealing respectively with agriculture, horticulture, fruit inspection, plant protection, fisheries, veterinary work and agricultural education, some of the services being still further sub-divided into subsidiary branches. In order to present as clear a picture as possible of the department's requirements, each service or branch will be separately dealt with and a brief account given, first, of any resuscitation or extension necessary to enable the service or branch to discharge effectively the duties which at present fall to it and, secondly, of the development required if it is really to meet the demands which may reasonably be made upon it.

B. DEPARTMENTAL ADMINISTRATION.

3. *Resuscitation and Extension.* The organization of the Directorate of the department is in general adequate save in two respects. On the advice of Sir Frank Stockdale, the post of Agricultural Education and Research Officer was created in 1936-37. The officer appointed to it resigned in 1937 but not before he had done sufficient work to show how important were the duties attaching to the post and how handicapped the department was in its absence. The resuscitation of this post is urgently required. Further, in accordance with a principle

accepted by Government, it is proposed to augment the establishment of the department by the appointment of an Accounts and Establishment Officer in order to ensure more effective control over its considerable expenditure. Provision was made accordingly in the estimates for 1936-37 but had subsequently to be excised. The cost of these two officers and of an additional clerk who will be needed in view of the increased volume of work which will have to be dealt with when the department is brought up to strength amounts to £P.1,332. It is not anticipated that any material further expansion of the Directorate will be necessary even should a programme of new agricultural development be initiated; such expansion of staff as will be required in that event will be effected primarily in the district organizations.

C. AGRICULTURAL SERVICE.

I. AGRICULTURE.

4. *Resuscitation and Extension.* For a considerable time past, the establishment of this service has been inadequate to cope with the work which it was constituted to perform. It is no longer possible for a single Chief Agricultural Officer to control the whole of the agricultural work throughout Palestine with only locally recruited assistance. Nor is the present sanctioned staff of three district Agricultural Officers sufficient, especially in view of the fact that three new administrative districts have recently been constituted, bringing the total number of such districts to six.

5. It is therefore proposed to divide Palestine into two Circles, Northern and Southern, each under a British Senior Agricultural Officer, and at the same time to increase the number of district Agricultural Officers from three to five. It is also proposed to revive four posts of Agricultural Inspector (field officers attached to administrative sub-districts and Jewish settlement centres) which were retrenched owing to financial stringency, thus raising the number of such officers from 15 at present employed to 19, the number employed in 1938-39. Further, a new post of Superintendent of Field Experiments should be brought into being; this appointment is necessary in order to permit of adequate supervision and co-ordination in the field of valuable and important experimental work undertaken on a large scale in Jewish settlements and on agricultural stations. The officer in question, who will be required to possess special qualifications, will function in effect as the field assistant of the Agricultural Education and Research Officer referred to in paragraph 3.

6. The total additional cost under personal emoluments involved in this reorganization, including allowance for a certain number of consequential subordinate and clerical posts and the restoration of the

provision previously made for farm labour on experimental stations which has been deleted from recent estimates on grounds of economy, will be £P.4,536 a year.

7. Apart from personal emoluments, it will be necessary to restore grants excised on financial grounds to the extent of £P.2,585 for the upkeep of agricultural stations, agricultural demonstrations and experiments, fodder demonstration plots, experiments on the improvement of natural pastures and the like. Additional funds are required under two heads only, to the extent of £P.970 capital and £P.1,055 recurrent. Of this amount, £P.970 of capital and £P.555 of recurrent expenditure are for the expansion of seed propagation experiments, to secure the seed best suited to the climatic and other conditions of Palestine, while £P.500 are to cover the expenses of two annual agricultural shows, to be held in two different centres. Such shows are of great importance as means of stimulating healthy competition and directing it along proper lines.

8. *Development.* With the establishment and resources already mentioned, the Agricultural Service will be in a position to meet the demands likely to be made upon it. Further development is foreseen in two directions only. The first is the establishment of a seed testing bureau. The principal object of such a bureau will be to safeguard the interests of the farmer and market gardener and at the same time to raise the standard of seed of all descriptions in the country. A considerable quantity of seed, which has no germination power, is at present put on the market; the purchaser has no guarantee that he is buying true to type seed or, indeed, seed which has any useful qualities at all. On the establishment of the bureau all importers and vendors of seed will be registered and their stocks liable under legislation to be examined in precisely the same way as fertilisers are now treated. The bureau will be created in collaboration with the Jewish Agency Research Station at Rehovoth: it will entail an initial capital cost of £P.300 and recurrent charges of £P.600 a year.

9. The second development proposed relates to the bulk storage of grain. Great damage is caused annually to stored grain by various insect pests and it is important that, if possible, storage in silos should become common practice so as to obviate the heavy financial loss which the present system imposes on the country. Stored grain pest investigations have already been conducted by the department and it is now proposed to construct a model silo, of about 200 tons capacity, in which the prevention of infestation and methods of disinfection can be demonstrated on a large scale. The cost of such a silo is estimated at £P.1,000. The project is of importance as a first step towards the scheme for bulk storage which is described in paragraphs 47 and 48 of this chapter.

2. POULTRY AND BEE-KEEPING.

10. *Resuscitation and Extension.* The poultry industry, which has undergone remarkable expansion, is still incapable of meeting the enormously increased demands of Palestine for eggs and table-birds; a definite opportunity thus exists for the development of poultry keeping amongst Arab farmers and Sir Frank Stockdale, as a result of his visit to Palestine in 1935, stressed the importance of promoting the industry. Bee-keeping is also a valuable subsidiary source of income to the small farmer.

11. A small organization, specially established to deal with these problems, was formed as a result of Sir Frank Stockdale's Report, but much of it has since been abolished on grounds of economy. It is proposed to revive this organization but on somewhat different lines. Responsibility for poultry and bee-keeping activities has recently been transferred from the Veterinary to the Agricultural Service and Agricultural Inspectors have been given courses of instruction in these subjects; of the five posts of Poultry and Bee-keeping Instructor previously in force it is proposed to revive only two and, in place of the other three, to appoint an Assistant Poultry and Bee-keeping Officer who will be an expert in the subject and competent to supervise and give advice to the district staff. The poultry sections at various agricultural stations, which have been destroyed or closed down during the disturbances, will be re-opened. A new activity proposed is the establishment of an isolated apiary for the breeding of queen bees where there is no danger of inferior drones mating with the selected queens. The cost of the resuscitation and re-organization of the service on these lines will involve an initial expenditure of £P.800 and a recurrent expenditure of £P.1,351.

12. *Development.* An important limiting factor in the increase of poultry population on primitive farms is the broodiness of hens, since broody hens required for the production of young stock are not always available in sufficient number at the time required. It is therefore proposed to establish a modern hatchery of 100,000 eggs capacity, which will make possible the sale to farmers of about half a million day-old chicks per annum at cost price. The existence of a demand of this magnitude has already been established. The initial cost of this hatchery will be about £P.3,000; the cost of eggs, electricity, labour and repairs, which will amount to about £P.2,500 per annum, will be covered by the sale price of the chicks. It is anticipated that the latter price will be about five mils per chick.

D. HORTICULTURAL SERVICE.

13. *Resuscitation and Extension.* The Horticultural Service was, prior to the disturbances, in a reasonably efficient state and the first necessity is to restore the provision made four years ago for its staff

and activities, this provision having since been progressively reduced on the ground of economy. Such restoration will involve expenditure to the extent of £P.4,516 a year. Two new posts and an additional clerk, costing in all £P.636 a year, are also required. The first such post is one of Horticultural Instructor, whose duty will be to advise growers on all problems connected with horticulture; one post of this kind is already in existence but it is impossible for the incumbent to cover effectively the whole of Palestine. The second post is that of Fruit Products Instructor, who will be required to give advice to small farmers on the drying and preservation of fruits. Owing to the absence of a suitably qualified officer, this important aspect of fruit farming has been much neglected in the past. A non-recurrent expenditure of £P.230 is also required for draught animals and carts at certain horticultural stations.

14. *Development.* There is need for a small horticultural station at or near Beersheba for the purpose of demonstrating the growing of varieties of fruit trees suitable for arid regions and adaptable to the saline water in this area. The capital cost of such a station will be £P.800 and the cost of its maintenance about £P.300 per annum. The Director of Agriculture and Fisheries has also prepared a scheme for the installation in certain villages of modern mechanical oil presses. There is little doubt that such installations, in addition to giving an immediate increase in income by increasing the yield of oil, would tend to encourage the production of better quality olives. The cost of each press is about £P.600 and the Director has recommended that loans for the purchase and installation of ten of them should be made at low rates of interest to selected Arab villages, the instalments recovered being utilized for the installation of further presses in subsequent years. We favour this proposal in principle but consider that action on it should be deferred until some representative body, in the form either of a responsible co-operative society or of a village council, has been set up in each of the selected villages. Failing the existence of such a body, we doubt whether the scheme would be successful, particularly as it will be strenuously opposed by present vested interests.

E. FRUIT INSPECTION SERVICE.

15. The present organization of the Fruit Inspection Service is satisfactory and its staff is adequate for the work. No extension or development is therefore recommended.

F. PLANT PROTECTION SERVICE.

16. *Resuscitation and Extension.* The object of the Plant Protection Service is to ensure the control of pests and diseases which affect crops, fruit and vegetables, since in the absence of such control heavy losses are incurred annually by farmers and fruit growers. In some

cases empiric methods of control can be adopted but in most cases it is necessary to evolve, after research and experiment including the study of the life histories of injurious insects and the use of insecticides, the most efficacious methods of combating pests and diseases under local conditions. The service further maintains a staff (which has recently been reduced for reasons of economy) to bring the results of the research work to the knowledge of farmers and to demonstrate their value in the field.

17. The resuscitation of posts costing £P.200 a year and the addition of certain new subordinate posts costing £P.384 a year are required in order to enable the service to operate effectively. More funds are also required for research work, for the provision of entomological apparatus and laboratory instruments and for the construction of a small experimental silo in which to carry further the investigations now in progress in respect of insect attacks on stored grain to which reference has been made in paragraph 9 of this chapter. The cost of this extension of research is estimated at £P.910 capital and £P.250 recurrent expenditure. The installation of a vacuum fumigation plant at Haifa port, at a cost of £P.1,000, is also considered a matter of urgency. There are at present no facilities at any of the ports of Palestine for the disinfection of imported plant material and such facilities should certainly be provided at Haifa at least, since it is here that most of such material is landed. Fees will be charged for the services rendered.

18. *Development.* The present laboratory accommodation is inadequate for the amount of work to be done and it is proposed to construct a further small laboratory in the grounds of the Government Stock Farm at Acre at a cost of about £P.1,000. Two small moveable laboratories, which will cost about £P.200, are also required to enable observations to be made and data collected in the field in connection with research into the means of eradicating *Capnodis*, a boring beetle which constitutes the main threat to the Palestine fruit-growing industry.

G. FISHERIES SERVICE.

19. *Resuscitation and Extension.* The rapid growth of the population of Palestine and particularly of the urban population has resulted in a large demand for fish as an article of food but the fishing industry is so poorly organized that this demand far exceeds the supply. In consequence, fish is a very expensive food and one out of reach of all but the well to do, and this in spite of the fact that there is no dearth of good quality fish off the coasts of the country. But the coastal fishermen are usually poor and in debt to fish dealers and their methods of fishing are primitive, while the lack of safe harbour accommodation and of suitable landing places for fish on the coast is an additional handicap. As regards inland waters, Lake Tiberias is the only important

source of fish and this lake has been so over-fished that the industry there is threatened with extinction.

20. A Fisheries Service was established in Palestine in 1927 but five years later it was abolished on grounds of economy. The importance of the reorganization of the industry coming again to the fore, it was resuscitated in 1936, a Chief Fisheries Officer was appointed and a power-driven fishing demonstration boat purchased. The disturbances intervened, however, and consequently the service has never been provided with either the staff or the funds necessary for it to perform the functions for which it was created. The Chief Fisheries Officer resigned and was not replaced, but recently an application has been made for the appointment of a successor.

21. The first need is for adequate staff. It is proposed that a Senior Fisheries Officer should be appointed to give practical technical instruction on modern methods of fishing and on the construction, use and repair of fishing gear; in the absence of such an officer, this important side of the Fisheries Service has been crippled. He will have five trained assistants who will also give advice and instruction to fishermen under his direction. The number is not excessive in view of the fact that, in 1936, 1,058 fishermen and 461 boats were employed in the trade, no less than 2,000 tons of fish being landed. Provision is also needed for fishing guards, for fishermen to man the demonstration boat, and for the necessary clerical assistance. The staff envisaged (excluding the Chief Fisheries Officer, for whose salary provision already exists in the current estimates) will cost £P.2,138 a year and a sum of £P.355 will also be required for the purchase of necessary equipment.

22. A further much needed extension is the establishment of a fish breeding station. As already mentioned, the position of the Lake Tiberias fishing industry demands urgent attention, since the stock of breeding fish in the lake is now so low that unless steps are taken either to close the fishery completely or to restock the lake, disaster is inevitable. The station, besides restocking Lake Tiberias, will serve as a source of supply of fish for pond fish culture elsewhere in Palestine for which there is great demand, and as a hatchery wherein larvaecidal fish for anti-malarial work can be raised. The capital cost of such a station will be about £P.1,000, while there will be recurring charges of £P.180 for staff and of £P.150 for maintenance.

23. *Development.* Under this head the Director of Agriculture and Fisheries has proposed that assistance should be given to the industry in two directions, namely, by the provision of loans to the extent of £P.10,000 for the construction of boats, purchase of nets, installation of marine engines and the like, and by the construction or provision of suitable harbour accommodation for fishing boats at Haifa and Gaza.

24. We do not feel able to support the first proposal, which is based on a recommendation of the General Agricultural Council, as there would be no security for the loan in question except the perishable articles for the purchase of which the money is required. If Government shows its readiness to play its part by establishing an effective fisheries service it should be possible for companies or co-operative societies of fishermen to take advantage of the opportunities provided; in that event, commercial firms would probably be willing to lend such money as was necessary to put the industry on a sounder basis.

25. The proposal for better harbour accommodation visualizes the expenditure of £P.1,000 on the provision of facilities, including a fish market and stores, within the precincts of Haifa harbour and of £P.1,300 on improvements to the jetty at Gaza. There is not the least doubt that the whole industry is at present severely handicapped by the lack of harbour accommodation and that its provision is a matter which should receive the early consideration of Government. The proposal for accommodating boats in Haifa harbour envisages space for fifty fishing boats and twelve large motor trawlers; we have ascertained from the Port Manager that the introduction of these craft into the harbour will not interfere with larger traffic and we consider that the necessary facilities should be provided as a temporary measure pending the completion of the main quay extension when permanent arrangements, which have always formed part of the planning of the harbour, will be possible. As regards Gaza, we do not think that any sum of the order of £P.1,300 will provide even reasonable facilities; indeed, it is doubtful whether anything short of an enclosed basin, which would be very costly, would be effective. There seems to be no alternative as regards the southern reach of the Palestine coast to landing fish on the open shore or bringing them to the lighter basins at Jaffa and Tel Aviv.

H. VETERINARY SERVICE.

I. ADMINISTRATION.

26. The staff of the Veterinary Service, and more particularly its headquarters personnel, has never been adequate for the work which it is called upon to undertake. With the greatly increased development of the livestock and poultry industries and the increased importation of stock, it has become a physical impossibility for the single officer who at present constitutes the headquarters staff both to administer the service and to keep a watch over its activities in the field.

27. A considerable strengthening of the administrative staff is a matter of urgency. The first need is for a Senior Veterinary Officer, whose special duty would be to administer the disease control section of the service, and who would also be available to take charge when the Chief Veterinary Officer is on leave. For nearly a year during the

past three years the Senior Veterinary Research Officer has had to assume charge of the service in addition to his own duties, an arrangement as inappropriate as it is detrimental to the efficiency of the service, both on the field and on the research sides. Provision for the post of Senior Veterinary Officer was included in the estimates for 1936-37 but was subsequently deleted.

28. Other posts necessary at headquarters are those of Office Assistant to the Chief Veterinary Officer (a post provision for which was made in the estimates as long ago as 1930), of Assistant Senior Veterinary Officer in charge of the Quarantine Section (a post the need for which was admitted by Government in 1936), of Animal Husbandry Officer (a post created in 1936 but abolished again in 1938) and of Dairy Instructor. The last mentioned appointment is much needed as applications are constantly being received for advice regarding the various aspects and processes of the dairy industry and in the absence of a specialist such applications cannot be dealt with. Sir Frank Stockdale, in his report on his visit to Palestine, drew attention to the backward state of organized dairying among the Arabs and to the opportunities for its development especially in the vicinity of the larger townships. The cost of this re-organization will amount to £P.2,660 a year together with a non-recurrent item of £P.150 for dairy equipment for demonstration purposes by the Dairy Instructor.

2. VETERINARY FIELD STAFF.

29. *Resuscitation and Extension.* The needs in respect of staff for this section fall under two heads, those required for veterinary assistance to farmers in general and those required for such assistance to poultry farmers in particular. The requirements under the first head include an Assistant Veterinary Officer for the Tulkarm sub-district, where the area around Nathanya has developed to such an extent as to afford ample employment for a whole-time officer. This appointment was included in the estimates for 1936-37 but was never, in fact, created. They include also the resuscitation of ten posts of Stock Inspector and one of Camel-man, all of which were in operation prior to 1939-40 but which were then retrenched on grounds of economy. On the poultry farming side, a third Poultry Diseases Officer and two subordinate Poultry Field Laboratory Attendants are badly needed. The two Poultry Diseases Officers at present employed are physically unable to cope with all the demands for advice in controlling and preventing disease which are made upon them, especially in the absence of any subordinate assistance in the maintenance of the field laboratories in which disease is diagnosed and the preliminary investigation of obscure conditions affecting poultry carried out. The staff suggested is the minimum necessary to place this branch of activity on a sound footing.

30. The incidental expenditure of this branch of the Veterinary Service has been rigorously pruned in recent years and the grants deleted must be re-instated if the branch is to function with full efficiency. These grants include £P.100 for drugs, dressings and instruments, £P.100 for the control and suppression of animal contagious diseases, £P.460 for the grading of village cattle, £P.25 for the destruction of jackals and £P.520 to be granted as premiums for selected sires.

31. The total amount involved in the resuscitation and extension of the work of the Veterinary Field Service on the lines proposed above is £P.1,756 per annum for personal emoluments and £P.1,205 per annum for other charges.

32. *Development.* Up to the present, this service has never had the resources properly to attack the two main problems which face the farmer in Palestine, namely, the control of disease and the improvement of the indigenous stock. One of the most important factors in the building up of the dairy industry is the control of bovine tuberculosis. A test survey made in 1928 revealed an incidence of $1\frac{1}{2}$ per cent. and a scheme of control was then drawn up with the object of eradicating the disease while the incidence was so low; this scheme was, however, rejected on financial grounds, the Government at the time taking the view that the expenditure involved was unjustified unless the degree of infection was really bad. A second test survey was carried out in 1936 and revealed that the incidence had risen to 11 per cent. Provision to combat the disease was inserted in the estimates for 1938-39, but was excised on grounds of economy. Since that time, there can be no doubt that there has been a progressive dissemination of the disease.

33. The failure in the past to adopt preventive measures in England has resulted in a situation where between 40 and 50 per cent. of the dairy cattle are infected, with a consequent high incidence of human tuberculosis of bovine origin. The complete eradication of bovine tuberculosis in England is now impracticable. Palestine, on the other hand, while not presenting the unique opportunity of ten years ago, affords a chance for the institution of control measures with the ultimate object of eradication. It is a chance which, if not taken, will never recur. The cost is estimated at about £P.36,000 over a ten years' period as compensation for cattle destroyed; the amount is expected to decrease from about £P.5,000 in the first year to about £P.2,000 in the tenth.

34. There are in Palestine several diseases which exact a very heavy annual toll on the sheep and goat population, thus causing severe financial loss to Arab stock-owners, who own some 95 per cent. of such animals. In the past, an effort has been made to combat such diseases by demonstrating methods of prevention and treatment, but owing to lack of

funds such demonstrations have been performed on a very modest and limited scale. What is required in this connection is the establishment of some twelve centres in districts where animal husbandry is of prime importance to which flock-owners can bring their flocks for the application of the relevant preventive measures, such as vaccination, dipping or drenching. It is estimated that the cost of establishing and maintaining such centres would be about £P.6,000 in the first year and about £P.3,500 thereafter.

35. Other developments which are most desirable in connection with this branch of the department's work are measures to ensure the upgrading of horses, donkeys and cattle (it is significant that recent attempts to obtain in the country horses of the standard required by the Palestine Police have completely failed), the castration of village scrub stock and the proper recording of milk yields with a view to the selection of the best types of dairy animals. Further research and investigation is also required in respect of sheep and goat diseases and the control of bovine mastitis, a disease which constitutes one of the most serious problems of the dairy farmer and which, in economic importance, is comparable with tuberculosis and contagious bovine abortion. Schemes for all these activities have been drawn up. The expenditure entailed is £P.4,250 a year but the results should be of almost inestimable benefit to the Arab farmer.

3. QUARANTINE SECTION.

36. *Resuscitation and Extension.* There are eleven land frontier quarantine stations, apart from the Haifa port animal quarantine station which deals with all sea-borne animal traffic. Owing to the disturbances, most of the land frontier stations have been closed and the staff disbanded. With the resumption of normal activities it is essential that the minimum establishment at each station, namely, one superintendent and two guards (except at Haifa and Samakh where at least five and three guards, respectively, are required) should be reinstated. A poultry quarantine superintendent is also necessary in the Jaffa—Tel Aviv area. It may be mentioned that quarantine personnel, in addition to their duties in the station, are required to patrol the frontiers in order to prevent the smuggling of stock. The cost of this resuscitation of staff is estimated at £P.1,020 per annum. The grant previously made of £P.150 per annum for the upkeep of quarantine stations must also be restored. No further development of the section is necessary.

4. VETERINARY LABORATORY.

37. *Resuscitation and Extension.* An important duty of the Veterinary Laboratory is to conduct the campaign against dourine, a serious horse-breeding disease, a campaign which necessitates the conduct of a

minimum of 1,200 tests monthly. The performance of the tests involves the continuous preparation and titration of various reagents; the whole work is delicate and complicated and the constant supervision of the process by a technically qualified staff is an absolute necessity. It is proposed to appoint two Laboratory Assistants who will be in a position to concentrate on this work. Dourine testing is intimately connected with the horse breeding activities of the Government Stock Farm, with a view to preventing a recurrence of a catastrophe which occurred some years ago when several valuable Government stallions contracted the disease and had to be either castrated or destroyed. Provision is also required for a head clerk at the laboratory, which at present has only a single junior clerk who is unable to cope with all the clerical, accounting, stores and statistical duties. The cost of this additional staff will be £P.560 per annum. Funds are also necessary for the upkeep of the laboratory to the extent of £P.340 per annum, of which £P.240 is for the restoration of previous grants reduced on the score of economy and £P.100 represents the cost of an increased number of dourine tests. Capital expenditure to the extent of £P.100 for new equipment is also required.

5. STOCK FARM.

38. *Resuscitation and Extension.* The Government Stock Farm at Acre is of prime importance as the principal factor in raising the standard of livestock in Palestine. During the disturbances the activities of the farm were perforce reduced, with a corresponding reduction in the labour force employed. Restoration of the provision for such labour and for the maintenance of equipment and livestock to the extent of £P.590 a year is now required.

39. *Développement.* The Acre Stock Farm is well situated and staffed for the work which it has to perform but financial considerations have prevented it from acquiring foreign breeds of livestock in the numbers necessary to enable sires to be produced for distribution in the districts with a view to improving the native breeds of stock and increasing their productive capacity. It is proposed that further stock should be acquired to the value of £P.5,500, these including Kerry, Guernsey, Ayrshire and red-pollled cattle, Arab horses, Highland ponies (valuable for producing both a stronger and heavier horse for light draught work and for the breeding of mules), Catalonian donkeys and Karakul sheep. Further sheds to the value of £P.3,200 will also be required, bringing the initial cost of the scheme to £P.8,700, while recurrent expenditure of £P.1,400 per annum will be entailed on feeding stuffs, equipment and attendance.

I. TRAINING OF DEPARTMENTAL OFFICERS.

40. It is impossible for Palestinians to obtain in this country a really satisfactory training in modern scientific agricultural theory and practice and it was customary in the past to send Palestinian officers of the de-

partment to England for the purpose, a procedure which produced most valuable results. Recently, owing to financial stringency, the practice has been discontinued but it is most desirable that it should be resumed. It is proposed to send five officers in the first year, two in the second, three in the third and thereafter one every second year for advanced instruction in the United Kingdom or elsewhere. The cost, according to the number of officers under training, will vary from £P.300 to £P.1,500 a year.

J. INCIDENTAL CHARGES.

41. If the resuscitation and extension of the department as described in this chapter are effected, additional funds will be necessary to defray charges for cost of living and housing allowances, travelling expenses and other incidental expenditure such as postage, lighting, heating, uniforms, etc. The estimated cost of these services is given below; where they relate to retrenched establishment which it is now proposed to restore they are, of course, merely restorations of previous grants :

Non-recurring.

Typewriters	£P. 120
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Recurring.

Cost of living and housing allowances	£P. 1,526
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Transport and Travelling	£P. 7,086
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Other Charges	£P. 1,665
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TOTAL :	<u>£P.10,277</u>
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K. RESEARCH.

42. *Resuscitation and Extension.* There are many agricultural problems which are peculiar to Palestine and which cannot be solved otherwise than by research under the direction of skilled scientists. The Jewish Agency maintains a number of research stations for the purpose, and in particular an elaborately equipped station at Rehovot staffed by specialists. In order to obviate over-lapping and duplication of effort and resources, it was decided some years ago that certain essential research which ought normally to be undertaken by Government but which would require the engagement of specialised research workers, the acquisition of more land, the erection of buildings and the purchase of special equipment and apparatus could be more economically carried out by the Jewish research stations under a system of Government grants-in-aid. This system was adopted with satisfactory results but recently the grants have been considerably reduced on grounds of economy. It is

proposed that grants to the extent of £P.2,630 should be restored, more particularly for citrus research and for research in connection with hill-side fruit farming.

43. *Development.* Reference was made in paragraph 18 of this chapter to the problem presented by the *Capnodis* beetle and to the threat which it affords to the whole fruit farming industry. The necessity for and importance of solving this problem is undisputed and it is therefore proposed that two departmental research stations should be established with the object of finding a means of control for stocks known to be susceptible to *Capnodis*. The two stations will involve a total recurrent expenditure of £P.1,500 per annum. Departmental research is also proposed to secure control of the olive fruit fly, which causes great damage to the fruit, resulting in loss of oil and rendering the olives unsuitable for pickling, and for the purpose of studying the life history of animal ticks so as to enable more economic dipping and control measures to be applied. These two branches of research could, it is believed, be completed in five years at a cost of £P.1,700 in the first year and £P.1,500 in subsequent years.

44. It is further desirable that additional funds should be made available for research at the Jewish research stations which otherwise Government might well feel itself under an obligation to undertake itself at much greater expense. The subjects to be investigated include the control of citrus little leaf disease which causes considerable loss to the citrus industry, the problem of preventing the growth of abnormally large and consequently unmarketable citrus fruit, the standardisation of the Shamouti (Jaffa) orange, the delayed foliation of deciduous fruits, the drought resistance of root-stocks (a matter of major importance to the Arab farmer in the hills where irrigation is not available), the acclimatisation of fruit trees and the longevity of banana plantations, especially those in the Jordan Valley where longevity is seriously affected by the salinity of the water. It is estimated that the cost of these researches will be £P.2,550 in the first year, falling to £P.1,700 in the tenth year, by which time some of the studies should have been completed.

L. MISCELLANEOUS SCHEMES OF DEVELOPMENT.

45. The Director of Agriculture and Fisheries has recommended certain miscellaneous schemes of development with which we deal briefly below. The first is for the establishment of a certain number of model fellah farms, as has been done by the Jewish research station in the case of Jewish farms. The underlying idea is to establish farms of the size usually found in the district concerned and to place suitable Arab farmers and their families in occupation. Advice and supervision would

be afforded by officers of the department, the continuance of the farmer in occupation being contingent on his acceptance of such advice. The Director believes that, if in this way the innate conservatism of the fellah could be broken down, it could be demonstrated that he could increase his income considerably with a relatively small amount of additional expenditure, and that demonstrations to this effect would go a long way towards introducing better methods of agriculture in the country-side. If the experiment is successful, it is proposed to extend it by giving small grants to suitable existing Arab farms on condition that they are conducted in accordance with the department's advice. The cost of establishing ten model farms is estimated at £P.1,000, while expenses entailed in subsidies while fruit trees come into bearing and in grants to eight existing farms would involve an annual outlay of £P.300. The experiment, if conducted on really practical lines, is one which seems to us to be well worth making. We consider that, where possible, these model farms should be located in State Domain villages.

46. The Director also suggests that, in order to encourage development on these lines, Government should make a sum of £P.100,000 available for long-term loans to Arab farmers to enable them to improve their holdings. This, however, is a function which should be performed by a Land Bank rather than by Government; in paragraph 22 of Chapter VIII we have recommended that Government should give careful consideration to the question of the institution of such a bank.

47. A further proposal put forward is for the establishment of grain stores by Government and the centralized marketing of grain by Government agency. It is pointed out that the Arab cultivator, who is invariably in debt, sells his grain at harvest time when prices are at their lowest; within two months they will have risen from 25 to 50 per cent. but the whole of this increase goes to the middleman, usually the money-lender. It is suggested that the cultivator should bring his grain to the Government store, where he would receive an advance upon it, the balance being paid after the grain was marketed, marketing being effected by Government at the most opportune time.

48. There are obvious advantages in the scheme which would ensure a better return to the producers, prevent fluctuation in prices, encourage co-operative marketing and give Government control of stocks in time of emergency. There are also difficulties, not least of which is the fact that, by manipulating the tariff, Government could fix the price of grain at any figure it pleased, a situation which would almost certainly lead to recriminations and accusations that the price was so settled as to benefit the revenue rather than the consumer. We consider that the proposal is worthy of closer examination in detail but are not prepared to go further than this at present. We may mention that the cost of ten stores

to accommodate 67,500 tons of grain is put at approximately £P.150,000, and that it is proposed that the running expenses of the scheme should be deducted from the proceeds from sales before the balance is divided among the producers.

49. An analogous proposal has been made for the establishment of four tobacco stores, at a cost of £P.35,000, for the centralised grading and marketing of tobacco. We have discussed this proposal with the Acting Director of Customs, Excise and Trade, and find that the system suggested is fraught with serious technical difficulties and would involve Government in activities such as the drying of the tobacco of each individual separately (the tobacco cannot be weighed until it is dried), the grading of the leaf and its subsequent baling, activities which we do not regard as falling within Government's proper functions. We do not, therefore, recommend that action should be taken on this proposal.

50. The Director has also advocated the provision of a rural lecture caravan, equipped with loudspeaker, cinematograph and suitable films, to spread agricultural knowledge among the farming community by means of lectures and demonstrations. We are informed that propaganda of this type has been very successful in Malaya. The initial cost of equipment is estimated at £P.1,500 and the recurring expenses at £P.650 per annum. We are somewhat doubtful as to the prospects of instruction on these lines really affecting the age-long practices of the Arab fellah and should rank the proposal as of considerably less urgency than the more practical measures mentioned elsewhere in this chapter.

51. Finally, the Director has suggested that scholarships at the Kadoorie Agricultural Schools should be awarded to selected boys whose parents or guardians are unable to pay school fees, in the hope that such boys will return to practical farming and put into operation the methods they have learnt in the schools. We consider, however, that the standard of education at the schools is too high for the purpose indicated; the schools are directed rather to the turning out of agricultural specialists and teachers than to producing practical farmers. The end in view will, we think, be better served by the establishment of farm schools, to which we have referred in paragraph 23 of Chapter VI.

M. SUMMARY.

52. We append below a statement showing the expenditure involved in the proposals made in this chapter, excluding those made in paragraph 14 (installation of mechanical oil presses), 24, 25 (provision of facilities for fishing boats at Gaza) and 46 to 51 :—

Branch	Initial Recurrent Expenditure				Residual Recurrent Expenditure
	Capital Expenditure	Resuscitation and Expansion	Development	Total	
	£P.	£P.	£P.	£P.	£P.
Administration	—	1,332	—	1,332	1,622
Agricultural Service—					
Agriculture	2,270	8,176	600	8,776	10,992
Poultry and Bee-keeping	3,800	1,351	2,500	3,851	4,067
Horticultural Service	1,030	5,152	300	5,452	5,844
Plant Protection Service	3,110	834	—	834	1,050
Fisheries Service	2,355	2,473	—	2,473	2,987
Veterinary Service—					
Administration	150	2,660	—	2,660	3,500
Veterinary Field Staff	3,000	2,961	12,250	15,211	11,611
Quarantine Section	—	1,170	—	1,170	1,170
Veterinary Laboratory	100	900	—	900	1,148
Stock Farm	8,700	590	1,400	1,990	1,990
Training of Departmental Officers	—	1,500	—	1,500	300
Incidental Charges	120	10,277	—	10,277	10,389
Research	—	2,630	5,750	8,380	2,630
Model Fellah Farms	1,000	—	300	300	—
TOTAL	25,635	42,006	23,100	65,106	59,300

53. The amount would best be spread over the ten years' period as follows :

Year	Expenditure on				Total
	Capital account	Resuscitation and Expansion	Development	Research	
	£P.	£P.	£P.	£P.	£P.
First	25,065	42,006	17,350	5,750	90,171
Second	—	41,894	17,000	5,550	64,444
Third	150	42,750	16,900	5,550	65,350
Fourth	—	42,546	17,000	5,550	65,096
Fifth	60	43,402	16,900	5,550	65,912
Sixth	150	43,796	15,200	3,200	62,346
Seventh	—	44,555	15,000	3,200	62,755
Eighth	—	44,855	14,800	3,200	62,855
Ninth	—	45,487	14,500	3,200	63,187
Tenth	210	45,652	14,550	3,200	63,612
TOTAL	25,635	436,943	159,200	43,950	665,728

CHAPTER III.

IRRIGATION.

A. HISTORY OF THE IRRIGATION SERVICE.

It is a somewhat melancholy fact that, after twenty years of occupation of a country in which irrigation is, to quote the words of the Royal Commission, "a matter of vital importance to its development and to the realization of close settlement", there is hardly an activity of Government in connection with which less has been accomplished. As long ago as 1930, Sir John Hope Simpson laid stress on the importance of an active irrigation policy in view of the backward state of irrigation in Palestine and recommended that the Irrigation Service should be detached from the Department of Agriculture, of which it then formed part, and be constituted as a separate service. This, as will be shown later in this chapter, was done, but by a process of gradual attrition its staff was depleted until, by 1939-40, its budget estimate had been reduced to £P.2,375, of which £P.1,423 represented personal emoluments and £P.677 contingent establishment charges, such as transport, travelling and the like, while the total amount allowed for actual irrigation work, experiments and investigations was £P.275. The further maintenance of a separate service on these lines was obviously useless and in June, 1939, it was reamalgamated with the Department of Agriculture.

2. Only two Government irrigation works are in existence, which irrigate small areas of State lands in Jericho and Beisan, respectively. Both are on too small a scale to warrant detailed description.

3. It is of some interest, and has a bearing on future development, to trace the rise and fall of the separate Irrigation Service, this service and the so-called Development Department being more or less synonymous. The department came into being in 1931 as a result of the recommendation contained in Sir John Hope Simpson's Report on Immigration, Land Settlement and Development, to which reference has already been made. It was proposed, at the time, to float a loan of considerable magnitude and with the proceeds to inaugurate an active policy directed towards the development of the natural resources of the country with a view to enabling it to support a larger population than was possible in its undeveloped state. A retired member of the Indian Civil Service was sent out from England as Director of Development, a Financial Adviser was seconded from the Home Treasury, a Legal Assessor and a Deputy Director were appointed, and the British Irrigation Officer was transferred from the Agricultural to the Development Department to give technical advice on questions relating to irrigation.

4. The department as a major organization was, however, still-born. The loan failed to materialize and the Director resigned after writing a preliminary report. On his resignation the staff was disbanded and the department was relegated to the status of a minor department, with a Development Officer in charge. The Irrigation Officer remained attached to the department with a Jewish Irrigation Inspector, who had been appointed during the Director's regime, working under him.

5. In 1936, a second attempt was made to foster the development of irrigation in Palestine. Legislation was drafted, designed to secure for Government the necessary powers of control over the water resources of the country, and the Development Department was reorganized so as to provide the nucleus of the establishment which would be required to administer the new law, when enacted. An Irrigation Adviser was appointed from England and a settlement officer was added to the establishment as Water Settlement Officer, under whom were employed a senior surveyor and a survey staff. At this juncture the department was in the strongest position which it attained, although it was realised that certain further additions would be necessary when the draft legislation became law.

6. The department had, however, hardly been re-formed before, as a consequence of the disturbances, it began again to disintegrate. The Development and Water Settlement Officers were both seconded for administrative work; prior to the secondment of the latter all water settlement work (which, pending legislation, was being carried on on an experimental basis) was closed down, the senior surveyor being discharged and the survey staff disbanded. The Irrigation Adviser was transferred to the Secretariat and the Irrigation Officer retired. By the end of 1938-39, the staff of the department had dwindled to a single officer, the erstwhile Irrigation Inspector (who had been promoted to the vacant post of Irrigation Officer), a temporary draftsman and four clerks. Clearly so small an organization could not stand alone and in 1939 it was, as already stated, re-absorbed into the Department of Agriculture and Fisheries.

B. IRRIGATION LEGISLATION.

7. The first essential to any activity in the field of irrigation is the enactment of the legislation which has already been drafted to secure to Government control of the surface water of the country. The main reason for past inactivity has been the fact that practically all such water in Palestine is in private ownership. Rights in water are regarded under the Ottoman law as the personal property of individuals and not as annexed to the land to which they should naturally appertain. They are a frequent subject of commercial transactions; a man may sell half his land and the whole of his water rights or he may retain the whole of his

land and sell half of his water rights. It is, moreover, not uncommon for speculators, who own no land at all, to purchase the water rights in an area and to farm out the water thus acquired to the highest bidders. The position is complicated by the fact that water rights are seldom registered and that most of them depend in the main upon custom and usage; in course of time these rights have become so sub-divided, largely owing to the Law of Inheritance, that an individual's share may have to be expressed as a fraction of an hour's use of a proportion of the discharge of a spring in a rotation of from ten to forty days. Conditions are thus chaotic, water is alienated from the land to which it naturally belongs and is led off for use elsewhere, the rich man is enabled to acquire more water than is rightly needed for his land at the expense of his poorer neighbour and, in the result, there is a large degree of waste.

8. The legislation proposed is substantially on the following lines. A specific area for settlement will first be notified in the Gazette. Two detailed investigations will then be made, the first dealing with the nature and extent of all existing water rights and the second with the amount of water available, the nature and conformation of the land and the crops grown thereon. The results of these inquiries will be examined and, where it is found that the use made of the water was reasonable and beneficial, titles in the water used will be conferred upon the owners of the land entitling them to continue to use the water for its benefit. These titles will be annexed to the land and registered, and no transfer of a title in water separately from the land to which it is annexed will subsequently be recognised. If, however, it is found that the amount of water used was wasteful and more than was actually required for beneficial purposes, only so much water will be annexed to the land as can be beneficially used upon it, the balance lapsing to Government.

9. When the initial settlement is complete, all water running to waste, all water found to be surplus because it has not been beneficially used in the past and all water gained by the construction by Government of conservation works, such as the lining of channels and the like, will be the property of Government and will be distributed by it to the best advantage for the purpose of irrigation within the area. In every case, a defined quantity of water will be annexed to a defined parcel of land and registered accordingly, an irrigation rate being levied from all those cultivators who, not having been in possession of water in the past, receive a supply as the result of the operations.

10. In this way it is hoped to produce order out of the present confusion and to establish a rational system of irrigation from springs. By preventing the excessive use of water and by introducing modern scientific means of collection and distribution it is believed that the volume available can be made to irrigate a considerably larger area of land than it

does at present. But, until the necessary legislation is passed, Government is powerless to intervene in a matter which, under the existing law, rests wholly with the private owners of the water.

11. The Royal Commission, in paragraph 100 of Chapter IX of their Report, urged that effective irrigation legislation should be enacted and the question has also been raised by the Permanent Mandates Commission. The reason why no effect has as yet been given to the recommendation is twofold. In the first place, the legislation envisages the creation of a new water control department of considerable size, without which its provisions would be ineffective, and in view of the financial conditions obtaining during the last three years this augmentation of staff was held to be impracticable. In the second place, of the officers who had been selected to fill the three important full time posts which are required for the administration of the Ordinance, those of Water Commissioner, Water Settlement Officer and Irrigation Officer, two were murdered during the disturbances and the third has retired, no one being recruited to take their places.

C. ORGANIZATION PROPOSED.

12. The time has now come to rectify the position and to resuscitate the organization formed in 1936 which is described in paragraph 5; as there stated, it was established to deal with the administration of the proposed legislation and its general framework remains suitable, although, if development is to be accelerated, additions will be necessary to enable it to cope with the additional work which will fall to it in connection with the initiation and control of projects. It is therefore proposed that, as soon as the legislation has been enacted, the Irrigation Service shall again be separated from the Department of Agriculture and be placed in charge of a Water Commissioner (in substitution of the post of Development Officer which existed in 1936) who, under the direction of the High Commissioner, will be responsible for the administration of the new law and generally for irrigation activities throughout Palestine. The post of Water Settlement Officer will be revived and a Chief Irrigation Officer will be appointed in place of the former Irrigation Adviser. These three posts are statutorily necessary. For the direct control of irrigation and the investigation of new schemes, two Irrigation Officers, one Arab and one Jew, will be appointed to the staff of the Chief Irrigation Officer, each with a small establishment of junior engineers, surveyors, draftsmen, etc., attached to him. The Water Settlement Officer will also have a settlement party under his control, and certain additions will be required to the clerical establishment originally employed.

13. The whole of the annual expenditure necessary during the development stage will not, however, be recurrent in perpetuity. It should be possible, within a period of ten years, to complete the water settlement

of the country and to dispense with the establishment required in the meantime for that purpose. Moreover, the proposed legislation provides that water rates shall be charged on the owners where irrigation is given to land not previously irrigated. It is anticipated that, when Government has obtained control of the supplies, it will be possible to make the water go much further than it does at present and at least some proportion of the cost of the Water Commissioner's establishment should be recovered in the shape of receipts under this head. But, in the absence of surveys and definite schemes, it is impossible to give any figure for such recoveries.

14. The following table shows, in round figures, the cost of the establishment actually employed by the Development Department in 1936, the budget estimate of that department for 1939-40, the anticipated cost of the Irrigation Department during the development period and the residual cost which will fall to be borne by Government thereafter.

	<i>Personal Emoluments</i>	<i>Other Charges</i>	<i>Total</i>
	£P.	£P.	£P.
Cost in 1936	6,800	1,700	8,500
Budget estimate 1939-40	1,400	1,000	2,400
Development period	12,300	4,200	16,500
Residual cost	8,000	2,500	10,500

D. POSSIBILITIES OF DEVELOPMENT.

15. Coming now to the possibilities of development, there are four sources of supply from which water can be obtained for irrigation, namely, perennial rivers, non-perennial rivers which run only after heavy rain and are dry for the remainder of the year, springs and wells. These are dealt with separately in the paragraphs which follow.

1. PROJECTS FROM PERENNIAL RIVERS.

16. The only two perennial rivers of any size in Palestine are the Jordan and the Auja, and of these the latter, which flows into the sea north of Tel Aviv, is of but minor importance. The water can only be brought on to the surface of the land by pumping and a concession for so doing has been granted to the Palestine Electric Corporation. About 5,000 dunums of land are at present being irrigated from the river.

(a) The Huleh Reclamation Scheme.

17. It is on the headwaters of the Jordan that the largest irrigation project contemplated in Palestine, the Huleh Reclamation Scheme, is situated. The Huleh Basin lies in the north-eastern salient of the

country. It includes Lake Huleh, a large papyrus swamp lying on the northern margin of the lake and, further northwards still, a number of villages, mainly in Arab hands, which are watered by the Jordan and by its three main tributaries.

18. The project has been under consideration for over a quarter of a century, the Ottoman Government having granted a concession to two Beirut merchants in 1914 for the drainage of Lake Huleh and the adjacent swamp. The project envisaged the deepening of the Jordan below the lake, thereby evacuating the water and leaving the lake bed and the marsh area dry and available for cultivation. The concession was transferred to a Turkish Company in 1918 and in 1934, practically no work having been done in the meantime, it was assigned by the latter to a Jewish corporation, the Palestine Land Development Company, in consideration of a purchase price of £P.192,000.

19. The area covered by the concession comprises 56,940 dunums, of which 16,919 dunums are lake, 21,453 dunums marsh and 18,568 dunums land. Most of the land area is cultivated by Arabs from the neighbouring villages; although it is flooded in the winter, a crop can be sown on it as the water recedes. A condition of the assignment of the concession to the Palestine Land Development Company was that the latter should, when the reclamation was finished, hand over 15,772 dunums of the reclaimed land, complete with irrigation and drainage channels, free of all charges to the Arabs in question.

20. As already mentioned, the Huleh basin includes, besides the Concession Area, a number of villages lying to the north of the concession boundary. This tract, which is some 79,280 dunums in extent, has always been a source of anxiety to Government. It is intersected by rivers and streams which form the headwaters of the Jordan and is irrigated, in a very haphazard manner, by a network of small indigenous canals. It is the most malarious tract in Palestine and all efforts to improve its condition have been largely unavailing. The northern and southern portions of the basin are too closely connected to be dealt with separately, as anopheles from either portion can range over the other. No remedial measures in the north can be fully effective unless the lake and marshes are drained while, conversely, it would probably prove impossible to render the Concession Area fit for colonization unless, simultaneously, sanitary conditions were established in the northern tract. And since the drainage channels necessary for the establishment of such conditions would necessarily have to pass down into the Concession Area and discharge into the concessionaires' drains, the only logical solution lies in a single comprehensive scheme covering the whole basin. Consequently, in 1935, a firm of British Consulting Engineers were engaged to draw up such a scheme, their fees being paid partly by Government and

partly by the concessionaires. The need for the collection of adequate hydraulic data resulted in the survey extending over a whole year. The project was received in August, 1936.

21. In addition to securing adequate drainage throughout the tract, the project provides for the improvement, by means of minor works, of the indigenous irrigation of 33,000 dunums in the northern portion of the basin. A further 17,000 dunums in this portion, at present irrigated by indigenous works, will, under the scheme, be given controlled irrigation from the new canals which are to be constructed to irrigate the Concession Area; technical considerations make it obligatory that these canals should start some four kilometres north of that area. The canals will also command a further area of 9,000 dunums outside the Concession Area which have at present no means of irrigation. Within the Concession Area of 56,940 dunums, 15,772 dunums have, as already mentioned, been reserved for Arabs, 6,440 dunums will be occupied by embankments, channels and the like, and 34,728 dunums will be available for Jewish colonization.

22. The cost of the scheme is high. Excluding the price paid to the Syreo-Ottoman Company for the concession which, as mentioned, amounted to £P.192,000, and excluding also interest on capital during construction, the actual cost of the works is estimated at £P.933,000, of which about £P.698,000 represents the concessionaires' share and £P.235,000 that of Government. If the two items excluded from these figures are added, the total cost of the scheme is unlikely to fall below about £P.1,300,000.

23. Government has a large interest in the scheme on several grounds. In the first place, it would enable sanitary conditions and a rational system of irrigation to be established in a large area north of the Concession Area. In the second place, the Huleh basin appears to be the only part of Palestine in which gravity irrigation on any large scale is likely to prove feasible and it is clearly desirable that the abundant water resources of the tract should be developed for that purpose, if possible. In the third place, there are obvious political advantages in a project of this nature. It was pointed out, in paragraph 123 of Chapter IX of the Royal Commission's Report, that it is in large schemes of reclamation of this kind that the Mandatory Power can best fulfil its obligations of encouraging, in co-operation with the Jewish Agency, close settlement of Jews on the land. The Partition Commission, in paragraphs 283 *et seq.* of their Report, quoted the Huleh Project as a model for schemes designed to benefit Arabs and Jews alike, and, in paragraph 288(ii), recommended that His Majesty's Government should provide the contribution necessary to ensure its construction. It was in pursuance of this recommendation that, in August, 1939, His Majesty's Government announced that they would contribute £P.235,000 towards the cost of the construction of the scheme. A fortnight later war broke out and Government withdrew

its undertaking. But the need for the work is still urgent and the provision of £P.235,000 for Government's share of its cost must be given the first place in any demand for money for irrigation work.

(b) High Level Jordan Canal.

24. The Huleh Reclamation Scheme represents practically the only possibility of gravity irrigation from the Jordan. The large hydro-electric power station of the Palestine Electric Corporation is situated at Jisr el Majami, some eight kilometres below Lake Tiberias, and, under the terms of the Corporation's concession, the supply required for the operation of the station has to be safeguarded and further water cannot, therefore, be drawn off from above it. A proposal for a canal taking its supply from below Jisr el Majami and irrigating in the Jordan Valley between that point and the Dead Sea has recently been investigated but found to be impracticable on both technical and financial grounds. The river is here flowing in a deep trough and the canal would consequently have to run for some 50 kilometres before it would command a single dunum of land. Moreover, the alignment would cross at right angles the whole of the drainage from the Judaeian hills and the canal would thus consist of a continuous succession of deep cuttings and high embankments, with drainage crossings every few hundred metres. Such a canal would be prohibitively expensive both to construct and to maintain. If the Jordan water below Jisr el Majami is to be utilized for irrigation it can only be by means of water pumped from the river near the spot where it is required.

2. PROJECTS FROM NON-PERENNIAL RIVERS.

25. Although perennial rivers are so rare in Palestine, there are in the hill regions innumerable non-perennial torrents, that is to say, torrents which discharge large volumes of water after heavy rain but which are dry for the remainder of the year. While there is no ground for the popular belief that, by damming up such torrents and storing the winter rainfall for use during the summer, a solution can be found for all Palestine's agricultural problems, the possibilities certainly deserve more consideration than has been given to them in the past. A satisfactory hill reservoir site has to fulfil a number of exacting conditions and sites which possess all the required qualifications are consequently infrequent, but such sites have been found in other countries and there is no reason to believe that they do not exist in Palestine also. No systematic survey of the country has ever been made with a view to discovering which torrents are suitable for the purpose, but some sixteen have been provisionally selected on which conditions appear to be more favourable than is usually the case, and it is desirable that each of these should be examined in detail. Pending such examination no definite pronounce-

ment can be made as to their potentialities but there is ground for hope that a certain number of practicable and useful schemes will emerge from the investigation.

26. The above remarks are applicable primarily to hill torrents. In the southern portion of Palestine and particularly in the Beersheba sub-district, the plain lands also are intersected by river beds which carry off the drainage of the tract after rain, being dry for the remainder of the year. There are numerous indications that, in past times, large areas were irrigated by diverting flood water from such rivers when in flood by means of weirs. It was proposed to construct an experimental work of this nature in 1937 but security conditions unfortunately rendered it impossible to carry out the project. It is interesting to note that, following the selection of a torrent and plain in suitable relation, the weir site was tentatively fixed by means of a reconnaissance from a neighbouring hill, from which a bird's eye view of the whole area could be obtained. On descending to the site, remains of an old channel were discovered which pointed plainly to previous operations precisely similar to those contemplated. It has since been proved that these remains date back to the Byzantine or possibly Roman period. Such remains exist in many parts of the Beersheba sub-district and show that in early times flood diversion works of this nature were a definite feature of the cultivation. There appears to be considerable scope for such works. The supplies would be too erratic to permit of the water being used for intensive cultivation but the works would be of great value to the cereal crops which, in the south of Palestine, are always in danger of failure owing to the smallness of the rainfall.

3. PROJECTS DERIVING WATER FROM SPRINGS.

27. Springs are the next source of water that require discussion; it is from them that all such gravity irrigation as exists in Palestine is effected. They vary in size from large springs such as those in the Beisan sub-district and in the Wadi Fari'a east of Nablus to very small ones of which there are large numbers scattered about the country. In no case, however, except the two small Government schemes referred to in paragraph 2, is the irrigation under any sort of control and the methods adopted are wasteful in the extreme.

(a) Beisan Irrigation Project.

28. A project which calls for urgent attention is that for the rationalization of the irrigation in the Beisan sub-district. In the absence of legislation, no action in this direction has been possible in the past. There are numerous springs in the area, but the water is uneconomically used; the antiquated system of water rights permits the cultivator in one area to use many times as much water to the dunum in one basin as is allowed to the cultivator in another. What is here required is a settle-

ment of water rights on the basis of beneficial use, the development of the springs to the utmost and the substitution of waterproofed canals for the present rough earth channels, from which heavy leakage takes place. It is anticipated that, when these steps have been taken, it will be possible to extend irrigation to considerable areas for which at present no water is available. A scheme on these lines would be of the greatest benefit to both Jews and Arabs alike; the Royal Commission, in paragraph 133 of Chapter IX of their Report, while regretting the errors of judgment made in the past in respect of the disposal of the land in question, concluded with the remark that "even now, at this late stage, it appears essential that Government should take over and regulate the water rights in this area, where close settlement is possible". No survey, of the nature which would be required before a firm estimate of the necessary expenditure could be framed, has yet been executed, but a rough reconnaissance places the cost of the project at about £P.100,000.

(b) Wadi Fari'a Project.

29. Another promising project is that for the development of irrigation from the springs in the Wadi Fari'a. These springs rise in the hills and follow the steep course of the torrent into the Jordan Valley, where the water is utilised for irrigation of the usual primitive and wasteful kind. The plain into which the Wadi Fari'a debouches is moreover the only portion of the lower Jordan Valley where sub-soil water has been found which is at once abundant and not too saline for irrigation purposes. By carrying the water from the springs to the valley in pipes it would seem possible to utilise the fall for the generation of power, a small hydro-electric station being established at the head of the canal system. The water rights throughout this system would be settled, the channels waterproofed and the irrigation organized on proper lines; by these means a large extension of the area now irrigated could be effected. In addition, wells would be sunk at the foot of the hills and an additional supply of water obtained by pumping it from the sub-soil, using for the purpose the power generated on the fall between the springs and the plain. In this case also no detailed survey or estimate has been made but the cost would probably be of the same order as that of the Beisan scheme described in the preceding paragraph.

(c) Other Projects from Springs.

30. There are numerous other springs throughout Palestine which would amply repay development. Owing to the lack of the legislation necessary to enable Government to assume control of the supplies and to the fact that, up to date, the Irrigation Department has never had the staff with which to carry out a systematic survey, detailed information regarding the potentialities of the country in this respect is lacking. But even the merest reconnaissance shows that there is scope for large numbers of small schemes of one kind or another.

31. Reference was made in paragraph 2 to a small Government irrigation scheme in Jericho, which shows what can be done in this direction. The scheme in question was only rendered possible by the fact that the land is Government land and that the water is Government property; the difficulties connected with water rights did not therefore arise. Although the amount of money available for the project has been very limited and much still remains to be done before full efficiency is secured, the works have proved most successful. By concreting the channels the heavy percolation losses which previously took place have been obviated and by installing regulators a rational system of distribution has been enforced as the result of which the water now goes much further than it ever went in the past. Considerable additional areas have been brought under cultivation and further areas could be included were money available to complete the project.

32. When legislation has been enacted to secure to Government the right to distribute supplies, similar projects should be constructed wherever spring water is available. Certain of these, designed to harness the larger springs, such as the Nueima and Duyuk springs in the Jordan Valley and the Kabri springs in the Acre sub-district, will be schemes of some magnitude; elsewhere they may be only petty works but each will be of material importance to its own locality.

4. SUB-SOIL WATER SUPPLY.

33. The last source of supply to be described is the sub-soil supply, which is drawn upon by means of wells. By far the greater part of the irrigation in Palestine, including the irrigation of practically the whole citrus area, is effected from this source. Well irrigation rests entirely in private hands, but Government has undertaken a certain amount of exploratory work with a view to demonstrating the existence or otherwise of water in out of the way areas and legislation has now been drafted to enable it to control well sinking to some extent so as to prevent an excessive drain on the sub-soil supplies.

(a) Hydrographic Survey.

34. Having in view the vast importance of well irrigation to the agriculture of the country, singularly little is known about the availability of sub-soil water elsewhere than in the Coastal Plain. Consequent on the recommendation of Sir John Hope Simpson that Government should institute a hydrographic survey of Palestine, a certain small amount of exploratory boring was carried out by the Public Works Department between 1930 and 1938 but the work did not proceed far as it was constantly being interrupted owing to the rigs being required for more utilitarian purposes. A hydrographic survey of southern Palestine and the Jordan Valley was made in 1938, but it had to be prematurely discontinued, before definite results were obtained, on account of the

disturbances. It is a matter of great importance to the country that this survey should be continued and extended to cover all Palestine until it is possible to say, in any part of it, what is the probability of striking water at a reasonable depth. The wells left unfinished in 1938 should be completed, some twenty or thirty further deep bores should be sunk in the Beersheba sub-district (the necessity for an authoritative estimate of the practical possibilities of irrigation in this region was stressed by the Royal Commission in paragraphs 41 and 42 of Chapter XXII of their Report) and some fifty or sixty elsewhere in Palestine. The cost of a deep well varies with the depth and strata from £P.500 to £P.2,000; the cost of completing a reasonably satisfactory sub-soil water survey of Palestine may be placed at £P.100,000.

(b) Shallow Wells.

35. A further effort should also be made to develop the possibilities of shallow wells in the Beersheba sub-district, where irrigation would be of particular value owing to the low rainfall. Where, as in many parts of that sub-district, torrents flow in gravel beds, it is usually found that, even after the floods have ceased and the torrent is dry, an underground river continues to flow. A well sunk in the neighbourhood of such a torrent will produce water throughout the year at a depth of only a few metres from the surface. The underground flow is, however, so small that the volume of water entering an ordinary open well is usually too limited to permit of its being pumped for more than short periods; the pump sucks the well dry and pumping has then to be suspended until the well refills. The same conditions occur in other parts of the world, and various expedients have been adopted to increase the volume available. In Baluchistan, it is common practice to construct large infiltration galleries in the beds of torrents to collect the water which is then led away through tunnels which emerge ultimately on the surface of the land. In Cyprus, open wells are sunk and shafts are driven in all directions from the bottom of the well until the volume entering is sufficient to allow of pumping without exhaustion. The construction of chains of wells connected by tunnels is a variant of this method of collecting supplies. Any or all of these methods should give effective results in Palestine where the conditions are favourable and early steps should be taken to try out their possibilities.

5. DRAINAGE SCHEMES.

36. Another activity, often closely linked with irrigation, is the complementary operation of drainage. Here again there are a number of projects which require to be taken in hand. One of the most important is that for the drainage of the Na'amén swamps near Acre; these swamps are the centre of wide-spread malarial infection extending over 300 square kilometres. It is proposed to short-circuit the Na'amén River into the sea and thereby drain the swamps, reclaiming in the process

some 2,500 dunums of land which will accrue to Government and the value of which is likely to exceed the capital cost of the project, which is estimated at £P.55,000. The execution of the scheme will further materially enhance the value of the land in the vicinity some of which is owned by Arabs and some by Jews and recoveries will be effected or contributions levied on this account.

37. There are numerous other drainage works crying out for execution. There are basins, such as the Marj Sanour to the north of Nablus, which have no outlet for their winter rainfall with the result that the land does not dry out until the summer when mosquito breeding is at its height. The surrounding villages are thus intensely malarious, while the land is rendered largely uncultivable. The drainage of basins of this kind would result in very considerable areas, at present water-logged, becoming available for cultivation. There are also certain swamps in the Coastal Plain which it may be possible to eradicate by sinking shafts and allowing the water which at present lies stagnant on them to percolate into the underground water table.

E. SUMMARY.

38. From what has been said, it will be seen that the extent of development is likely to be conditioned rather by the funds available than by the number of suitable projects which can be put forward. It would, however, be a mistake to embark on too ambitious a programme, since nothing has been done in the past and much data in connection with such matters as rainfall, run-off, discharges and the like have still to be collected before some of the projects mentioned can be confidently executed. Apart from the larger works which have been more specifically described, it is considered that a reasonable sum, say from £P.40,000 to £P.50,000 a year, could be expended without difficulty and with great profit over a period of ten years in the inauguration of minor schemes. Individually, they would mostly be comparatively small, but collectively they would have a most important effect on the development of the country.

39. The total sum required for the works to be included in the ten years' programme would then be approximately as follows:—

<i>Major projects :</i>	£P.
Huleh Reclamation Scheme	235,000
Beisan Irrigation Scheme	100,000
Wadi Fari'a Irrigation Scheme	100,000
Na'amein Drainage Project	55,000
<i>Minor projects :</i>	
10 years at £P.40,000	400,000
<i>Hydrographic Survey</i>	100,000
	<hr/>
TOTAL	990,000

40. The total expenditure, presuming that the Jewish share of the cost of the Huleh Scheme is immediately forthcoming, would probably be distributed over the period approximately as follows:—

	<i>Establishment</i>	<i>Huleh</i>	<i>Other major projects</i>	<i>Minor Works</i>	<i>Hydro-graphic Survey</i>	<i>Total</i>
	£P.	£P.	£P.	£P.	£P.	£P.
First year	16,500	24,000	10,000	5,000	20,000	75,500
Second year	16,500	47,000	15,000	20,000	20,000	118,500
Third year	16,500	47,000	20,000	40,000	20,000	143,500
Fourth year	16,500	47,000	30,000	45,000	20,000	158,500
Fifth year	16,500	47,000	30,000	50,000	20,000	163,500
Sixth year	16,500	23,000	30,000	50,000	—	119,500
Seventh year	16,500	—	30,000	50,000	—	96,500
Eighth year	16,500	—	30,000	50,000	—	96,500
Ninth year	16,500	—	30,000	50,000	—	96,500
Tenth year	16,500	—	30,000	40,000	—	86,500

41. The importance of an active development policy has been stressed consistently by every Commission which has visited Palestine and is further an important factor in connection with the application of the recently enacted Land Transfers Regulations. As long ago as 1930, Sir John Hope Simpson closed his Report with the following words:—

“In closing this Report I desire to record my opinion that the observance of the Articles of the Mandate, and specially of Article 6 of the Mandate, presents extraordinary difficulty. The sole way in which the Mandate can be carried out is by the intensive development of rural Palestine. It will not be sufficient to develop a small portion. The unique condition of success is the development of the whole, which as has been said before, is a task requiring not only years of work, but also material expenditure. There exists no easy method of carrying out the provisions of the Mandate. Development is the only way. Without development, there is not room for a single additional settler, if the standard of life of the fellahin is to remain at its present level. With development that standard could be raised so that it would permit reasonable conditions of livelihood to that backward class of the community and a margin of land could at the same time be provided for additional colonization”.

Seven years later the Royal Commission stressed the need for irrigation and development on a large scale in connection with its partition scheme and in the following year the Partition Commission recommended, in paragraph 288 of their Report, that Parliament should be asked to grant, in respect of that portion of Palestine which they proposed should remain under Mandatory control, a sum of a million pounds

for capital expenditure on development, including the Huleh Project, and a sum not exceeding £P.75,000 a year for ten years on recurrent expenditure on agricultural services, including the acceleration of land settlement operations.

42. Finally, in the Statement of Policy of May, 1939, when laying down the lines on which transfers of land between Arabs and Jews would be permitted, His Majesty's Government stated that its policy would be directed towards the development of the land and the improvement, where possible, of methods of cultivation. In the light of such development, they added, it would be open to the High Commissioner, should he be satisfied that the 'rights and position' of the Arab population would be duly preserved, to review and modify any orders passed relating to the prohibition or restriction of the transfer of land. This undertaking was repeated in the statement explanatory of the Land Transfers Regulations which was issued when the Regulations were published in February last. It was repeated again by the Secretary of State in the ensuing debate in the House of Commons and, when asked whence the necessary funds would be found, he referred to the new policy of expending £P.5,500,000 a year on development and welfare in the Colonial Empire, pointed out that that policy would be extended fully to the Mandated Territories, including Palestine, and added the words "I say that it is the policy of the Government to spend money, as far as that may be desirable, in order to improve methods of cultivation in Palestine".

43. In the light of the repeated recommendations of the past and of the undertaking given in connection with the promulgation of the new Regulations, agricultural development in Palestine would appear to have a strong claim to substantial assistance from the newly reconstituted fund.

CHAPTER IV.

LAND.

A. PRESENT ORGANIZATION.

The Department of Lands and Surveys has in recent years combined the activities of what were originally three Departments, namely those of Land Settlement, Land Registration, and Surveys. The three separate departments were re-established on the 1st April, 1940.

2. The Department of Land Settlement is responsible for the following :—

- (a) State Domain, the management of the Haifa Harbour (Reclaimed Area) Estate, of which the Director is Agent, and the presentation and prosecution of Government claims at land settlement;
- (b) the settlement of title to land; and
- (c) direct taxation and valuation.

There are also a number of allied matters which are dealt with by this department though strictly not falling under any of the above main heads.

The Department of Land Registration deals with matters relating to land registration, the Ghor Mudawwara Land Agreement and the acquisition of immovable property for Government and the Forces either by private treaty or under the Land (Expropriation) Ordinance or Land (Acquisition for the Army and Air Force) Ordinance.

The Department of Surveys deals with matters relating to survey, mapping, plans and other cognate technical subjects.

B. REVISION OF THE LAND CODE.

3. The first essential to any improvement of the procedure relating to land is the revision of the Ottoman Land Code which at present embodies the law upon the subject. Not only is this law complicated in the extreme but it is in many cases so vaguely expressed as to make interpretation both difficult and doubtful. In the result, disputes regarding land are frequent and protracted; the decisions given are not always in accordance with the dictates of justice, and State and public land is left almost wholly unprotected from alienation by the action of trespassers. We quote below the Royal Commission's remarks on this matter :—

“It is true that no new system has been introduced, no new land code has been enacted. The Ottoman Land Code has been retained, with all the difficulties involved in its various forms of ownership and tenure of land; several new laws have been passed to amend it, but it remains in essence the same complicated system, one which is not calculated to promote close settlement and intensive cultivation. Even with the amendments which it has been found possible to introduce, it cannot be deemed to be a satisfactory system in these respects, as will be seen from a perusal of this part of our Report. We may instance the difficulties with regard to masha'a and the Protection of Cultivators Ordinance.

“The subject is one which seriously affects the proper development of the country. But the formulation of a land code which can absorb the existing system and adequately meet the needs of the Bedouin population on the one hand and an advanced urban and rural population on the other is an exceedingly difficult matter and one which the Attorney-General's Department has never had the necessary time to undertake. In our opinion, however, the time has now arrived at which the task should be undertaken. We recommend that a committee should be set up to deal with it, and should include, in addition to persons familiar with the present law and local conditions, at least one person who is an expert in land law and has had experience in drafting agrarian legislation and of land administration elsewhere. We understand that this matter has more than once been the subject of consideration by the Palestine Government, which recognizes its importance and would probably welcome such action”.

4. It has been suggested by the Director of Land Settlement that the revision should be undertaken by a committee consisting of one Government officer and two private legal practitioners with experience of land problems; the period required for the revision was placed at one year and the probable cost at £P.6,500. We are inclined to think, however, that a more expeditious and cheaper method would be to place a single experienced officer on special duty to prepare the revision in the first instance; if necessary, further expert legal assistance could be engaged later for examination and criticism of the completed draft. We have particularly in mind, as an officer suitable to undertake the initial work, the former Director of Legal Studies, Mr. F. Goadby, who has very great experience in land legislation. The revision would cover the land laws as a whole, including such enactments as the Land (Mewat), Mahlul Land and Protection of Cultivators Ordinances, all of which are faulty in many respects.

5. Another enactment which, in our view, is in urgent need of amendment is the Land (Expropriation) Ordinance. Under the pro-

cedure there prescribed, the price paid for land required for a public purpose is usually governed far more by the fact that it is so required than by its previous value on the open market. We consider that the Ordinance should be re-drafted on the lines of the Indian Land Acquisition Act, under which land required for a public purpose is notified in the Gazette prior to the institution of proceedings for expropriation, and, if the matter goes to Court, the price which may be awarded is limited to the value of the land on the date of the notification, plus a small percentage as compensation for compulsory acquisition. If a similar provision were operative in Palestine, land required for public purposes would be acquired at fair rates instead of at the inflated prices usually charged under the existing system.

C. ACCELERATION OF LAND SETTLEMENT.

6. The necessity for pressing ahead with and completing the settlement of land in Palestine has been urged by every Commission and officer who has been charged with the investigation of the land problems of the country. In the absence of reliable titles all development is hindered, the raising of money on the security of land for its improvement is rendered impossible, transactions relating to land are complicated and protracted and any statistics of ownership, which are of great political importance, must always be regarded as open to question.

7. So far, land settlement has been almost entirely confined to the more valuable land in the plains but it is intended that it shall ultimately cover the whole country and include the sub-district of Beersheba. Since the total land area of Palestine extends to 26,319,000 dunums (of which Beersheba sub-district accounts for 12,577,000 dunums) and only 2,080,407 dunums had been settled to the end of 1939, it is clear that completion of the work will occupy an almost indefinite period unless drastic action is taken to simplify and speed up the procedure.

8. The settlement of land has, in the past, been carried out on a system which, even having regard to the value of the land settled and to the racial interests which were continually involved, we cannot but regard as meticulous. Now that the hill region and the Beersheba sub-district fall to be settled, we are convinced that some far simpler and more expeditious method must be devised unless the cost of the operations is to be out of all proportion to the value of the land settled and their duration is to be extended over a most undesirably lengthy period.

9. The question of expediting settlement has been under the active consideration of the Director of Land Settlement and a new method has recently been tried out in the Huleh salient which it is proposed to adopt elsewhere. In the past, survey has preceded settlement. This

has led to various difficulties. In the first place, survey proceeds much faster than settlement, with the result that there is usually a considerable interval between them; the demarcation of claims and survey of parcels far ahead of settlement obviously gives rise to the risk that, between the two operations, marks will have been removed or lost and plans become out of date. Although the survey staff has from time to time been removed for other work, such as large scale town surveys, and although survey was generally interrupted during the disturbances, the total area surveyed at the end of 1939 was still a million dunums ahead of settlement. In the second place, the surveyor is bound to demarcate and survey every claim, without investigation of its justification, with the result that an enormous amount of work is expended on the survey of parcels the claims to which, on examination at settlement, prove to have been wholly frivolous.

10. Under the system now in force in the Huleh salient the initial settlement operations, including the settlement of frivolous claims such as those referred to above, precede survey and the amount of the latter work required is greatly reduced. It is proposed that this shall be the common practice in future. It is also proposed to reorganize the settlement parties so as to increase the strength of the junior staff allotted to each Settlement Officer; at present the Settlement Officer is doing work which could well be done by his subordinates, an obviously uneconomical arrangement. The Director of Land Settlement assures us that, even were there no increase in the present number of Settlement Officers, the outturn of work could be largely increased by the reorganization of the parties on these lines, a reorganization which would entail additional expenditure of about £P.8,000 a year.

11. The Directors of Land Settlement and Surveys, have, in conjunction, worked out a scheme for the completion of the settlement of Palestine within a period of ten years. During the earlier years settlement operations begun under the old system would be finished under that system, and certain officers would have to be detached to complete the examination of some 1,400 cases which are still outstanding. Additional Settlement Officers, as well as those referred to above as soon as the work on which they are now engaged is finished, would work under the new system. Ultimately ten parties would be so working, the estimated output rising from 500,000 dunums a year in the first year (the maximum area settled in one year in the past was 334,000 dunums in 1933) to 1,200,000 dunums in the fourth and subsequent years. These figures exclude the Beersheba sub-district; it is considered that a simpler system could be devised for this sub-district and that its settlement could be completed by five parties working for five years. The total additional cost to be incurred during the ten years on account of

this acceleration of the programme by the three Departments of Land Settlement, Surveys and Land Registration is estimated at £P.875,000, while recoveries from fees of about £P.300,000 are anticipated. The net extra cost is thus about £P.575,000.

12. This is a very formidable sum and we are far from satisfied that it is not capable of great reduction. In our view, Palestine cannot afford to perpetuate, at this price, the system of settlement at present in vogue. That a simpler system is possible is shown by experience in Trans-Jordan; whereas in Palestine 254,000 dunums were settled in 1939, no less than 444,000 dunums were settled in Trans-Jordan and that with a much smaller and cheaper staff. We have not the figures necessary for a full comparison but such as are available to us indicate that it costs about three times as much to settle a dunum in Palestine as it does in Trans-Jordan.

13. We have regarded it as outside our terms of reference to make a detailed examination of the Trans-Jordan system. Some of the main differences between the two are that in Trans-Jordan Assistant Settlement Officers dispose of large numbers of cases which in Palestine have to be heard by the Settlement Officer himself, that the Settlement Officer writes no reports on claims other than those likely to go to appeal and then only a brief minute, and that appeals are heard on the spot by a Land Court Judge, specially selected, whose decision is final. This procedure may appear summary but we are informed that, in practice, it works to the satisfaction both of the Government of Trans-Jordan and of the fellahin, and, having in view the similarity of conditions in Trans-Jordan and in the hill regions of Palestine, we see no reason why a system framed somewhat on these lines should not be successful in the latter area also. We cannot, of course, give an estimate of the saving which would result from its adoption, but it seems to us not impossible that the net additional cost of completing the settlement of Palestine within ten years might be reduced from £P.575,000 to a figure more nearly half that amount.

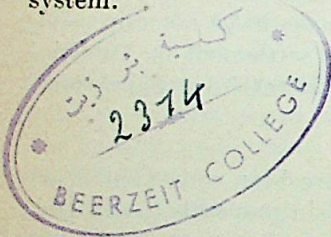
14. In the past, Government appears to have been somewhat chary about altering land settlement procedure. Certain proposals to this end, including the delegation of additional powers to Assistant Settlement Officers, were put forward by the Commissioner of Lands and Surveys in 1937, but no action has yet been taken on them. We consider that the whole question should now receive the active consideration of Government. Not only should the law be revised but the whole problem should be viewed from a new angle. In order to save the lengthy Secretariat examination which would otherwise be inevitable, we suggest that the Director of Land Settlement be asked to draw up detailed proposals for a new settlement procedure and that thereafter a Committee.

representative of all the departments concerned and over which the Attorney-General should, if possible, preside or on which he should be strongly represented, should be convened to draft the new legislation. Having regard to the large expenditure being incurred on settlement (£P.220,000 has already been expended on this activity) and the need for economy and expedition in future operations, we consider that the setting up of this Committee and the taking of the subsequent action should be treated as matters of urgency.

D. STATE DOMAIN.

15. As settlement proceeds, a considerable area of land will fall to Government as State Domain. The recording and disposal by sale, lease or otherwise of the land thus adjudicated to Government will, if settlement is accelerated as above proposed, necessitate certain additions, estimated to cost £P.618 a year, in the office of the Director of Land Settlement.

16. A discussion of the many complex questions which arise in connection with the acquisition, administration and disposal of State Domain would take us beyond our terms of reference but we would mention that we regard the present situation as far from satisfactory. The area of such Domain registered or claimed in favour of Government amounts to no less than 1,300,000 dunums. Yet there seems to be no definite policy in force to govern the administration of this important property nor does Government appear to have the power which it should have to prevent its dissipation by encroachment and the like. We understand that a Committee has recently been appointed to enquire into and to report on these questions; we consider that such an enquiry is overdue as much loss is undoubtedly incurred by Government under the existing system.



CHAPTER V.

FORESTS.

A. GENERAL.

"The fact has to be faced that there are to-day no real forests in Palestine and that if there is one country in the world in which afforestation is desirable that country is Palestine". These are the words with which the Royal Commission prefaced the section of its Report which deals with forestry and the view there expressed is one which we unanimately endorse.

2. It is beyond doubt that, in ancient times, the hills of which so much of Palestine consists were heavily wooded. As the population increased, however, the trees were felled in order to make room for cultivation. In the absence of any control over such operations, the inevitable happened. The hill sides were exposed and cultivated without terracing, the heavy rains of winter washed away the soil from the steeply sloping land and finally little was left but a few patches of earth amid outcrops of barren rock. One area having been thus ruined, another plot was cleared, cultivated and ruined in its turn. What little remained of the forests of Palestine at the beginning of this century was cut down by the Turks during the war of 1914-18 to provide wood for their military forces, the seal being thereby set on the result of ages of neglect and abuse. To-day the hills of Palestine stand bare and barren; in the 10,400 square miles of the country there are in all only 76 square miles of scrub forest and plantation. And year by year the position grows worse as such soil as remains is reduced by erosion, overgrazing preventing the growth of any vegetation which might arrest the process.

3. In the sand dune area along the coast serious damage is also apparent due to the absence of trees and vegetation. This absence allows the dunes to advance inland and to cover areas previously cultivable.

4. The question of afforestation has never been seriously tackled by the Administration. It is true that a Forestry Section, with a single qualified forest officer, was established as part of the Department of Agriculture in 1920, but it was not until 1926 that an Ordinance was enacted authorizing the establishment of forest reserves, to include uncultivated land which was not clearly private property. Even then various factors, and more especially doubts as to the ownership of the land to be reserved, militated against proper advantage being taken of the Ordinance; the one forest officer could hardly be expected to deal efficiently or expeditiously with highly complex questions of title and

servitudes seeing that he was also in charge of all Government fruit growing nurseries and experiments throughout the country and that the bulk of his time had thus to be devoted to general agricultural administration.

5. In 1933 the need for an active forest policy was at last recognized and it was decided that a separate Department of Forests should be established to put it into effect. This department came into being on April 1st, 1936. It has, however, had no chance of operating effectively, since its formation coincided with the outbreak of the disturbances and its budget has consequently been rigorously pruned year by year in common with those of all other Government departments. The amount allowed for actual forest work, e.g. afforestation, nurseries, demarcation, survey, etc.; in the estimates for the current year is only £P.5,000 for the whole country.

6. One of the main obstacles to the development of forestry in Palestine has, in the past, been the problem presented by the private ownership of land. Practically every tract, no matter how bare and unpromising, is dotted with patches of cultivation. Not only are all the best and most accessible areas so cultivated but nearly all the possible patches in the worst areas also. The balance, which falls under the head of public land, consists of the remaining strips and tatters, utterly impossible to protect owing to the grotesque length of its boundaries. It is, moreover, loaded with vague servitudes, such as rights of way, rights to cut wood (where wood exists) and almost unlimited grazing rights.

7. Largely as a result of this state of affairs, and because of the feeling prevalent in the countryside that agriculture is of advantage to the villagers while forestry is not, it seems usually to be assumed that whatever land can be cultivated should be private property, that whatever land is needed for an unlimited number of grazing animals should be village property and that merely those rocky and inaccessible areas which serve neither purpose should be devoted to forestry. And if, within these latter areas, there is a patch of good soil here and there, these patches should be regarded as private land and planted with fruit trees or sown with wheat.

8. Assumptions such as these render any consistent forest policy impracticable. Where it is a question of the planting of trees or of the resuscitation of vegetation for grazing purposes, the reserves must consist of substantial blocks over which a manager has complete control. Where it is a question of the prevention of soil erosion on steep slopes, control must be exercisable over the whole hill-side. It is useless to trench or terrace the lower slopes if the works are liable to be washed away by water running off uncontrolled private land higher up the hill.

When it has been decided that control is in the interests of the community as a whole, the rights of individuals must be relegated to a second place.

B. FOREST LEGISLATION.

9. To acquire all private land of the type referred to would be prohibitively expensive and it is therefore proposed to obtain the necessary power by legislation, which is now being drafted. This legislation will give Government the right to take over the management of private land situated within the boundaries of forest reserves and to manage it without thereby necessitating a change in title. Any revenue derived from the land will be paid over to its owner. Such legislation will, it is believed, enable a proper programme of afforestation to be carried out at a minimum cost.

10. The legislation will, in operation, be less drastic than might at first sight appear to be the case. Much of the private land which will be affected is of the poorest possible quality which, where cultivated, produces only an insignificant crop. Land now classed as grazing land has in many cases been so denuded that many acres of it may be necessary to provide provender for a single goat. Interference with private rights there must be but care will be taken to ensure that, even in the development period, any ill effects on the economy of the local communities are reduced to a minimum; such immediate ill effects as cannot be obviated will be amply compensated for as schemes mature and the local communities in question come to reap the benefits accruing from them.

C. POSSIBLE DEVELOPMENT.

1. PRODUCTION FORESTS.

11. Once legislation has been enacted, action will be taken to deal with the reserves on lines appropriate to each. The best areas, where either the soil is already good enough to grow high forest or where, if not at present in that state, it is susceptible of early and substantial improvement, will be ear-marked as production forest for the production of timber and firewood. The lack of such produce is particularly marked during the present crisis. The demands of the military authorities for firewood are already on such a scale that, if they are to be met from local supplies, there will not be a tree or bush in Palestine at the end of a three-years' war, while their demands for poles for camps and horse-lines, although only of a magnitude which a Forest Department would normally welcome, are far too large to be met from within Palestine at all. Nor is this the only ill effect of past neglect. Dung, which should be used as manure for the fields, is being utilized as fuel, national currency is being expended on the import of carobs which could readily

be grown on land now devoted to grazing, and commodities, such as hoops for the fastening of orange boxes and many others, are being imported whereas they might well and far more economically be grown at home.

2. PROTECTION FORESTS.

12. A further section of land will be set aside as protection forest, established expressly to conserve the water supply and to prevent erosion. Such forest will, in the first instance at any rate, consist largely of scrub, and any forest produce obtained will be incidental, although it may be of considerable value. Firewood plantations on sand dunes fall within this category; a scheme is at present in operation in the Gaza district where such plantations are being cheaply formed with the joint object of preventing the movement of the dunes and of securing a much needed supply of fire-wood. In general, the line between production and protection forests is not a very distinct one, as the latter in many cases yield valuable produce within a comparatively short period.

3. VILLAGE FORESTS.

13. The third type of forest will be the village forest, situated within easy reach of the village and managed solely to supply produce, such as fuel and small timber, handles for tools, ploughs and charcoal, to the village. The bare cost of the material will be paid for by the villagers so that, if they work free in the forest, they will get their produce practically free.

4. GRAZING LANDS.

14. Coming now to grazing lands, the chief trouble at present is that there is neither control nor method and, since overgrazing gives the maximum immediate benefit, the productive power of the land is destroyed and recovery prevented. Under a proper policy of development, certain areas will be set aside as grazing grounds, where the most suitable and nutritious shrubs and grasses will be sown and encouraged. Areas will be opened and closed as required and the number of animals permitted to graze will be limited solely in the interests of the villagers to the extent necessary to keep the vegetation dense and healthy and to ensure the maximum amount of continuous grazing. There is little doubt that properly managed grazing grounds will produce at least twice as much fodder as the present desolated and overgrazed slopes and hill-tops.

D. SCOPE OF DEVELOPMENT PROPOSED.

15. The scope for forestry in Palestine is enormous, seeing that the area now grazed over, the bulk of which might well be made available for the purpose, is estimated to extend to nearly 2,000 square miles.

But it is not suggested that any attempt should be made to bring an area of this size under management in the immediate future. Development must go hand in hand with the education of the village population. The Conservator of Forests visualizes a programme spread over ten years and designed ultimately to produce about 400 square miles of production and village forest, 400 square miles of grazing grounds and 100 square miles of protection forest. As he noted in a memorandum presented to Government in 1936 "those who are ready to defend the rights and interests of the individual can rest assured that, as long as circumstances permit the retention of this uneconomic and leisurely system of extensive grazing, there will remain areas, to the extent of about 1,100 square miles, where it may be practised".

16. Propaganda will be a necessary concomitant to any scheme for the development of forestry. Measures which restrict existing rights are bound to meet with opposition at first and the villagers will gradually have to be brought to see that it is they themselves who will benefit in the long run from the produce of the village forests, from employment in the main forests, from the leases of terraced orchards, from assured supplies of fodder and, last but not least, from the fact that practically all the money spent on forest development will go directly into their pockets. Once a number of schemes are available as object lessons, the initial opposition will probably cease and it should then be possible to reduce Government supervision and to hand over grazing grounds and village forests to the village itself for management. We look upon the establishment of some recognized council or body in each village, to which can be entrusted responsibility on the one hand and a measure of power to discharge it on the other, as a most important factor in any long-term forest policy for Palestine.

17. Of the value of such a policy to the community at large, as apart from the villagers immediately affected, there can be no possible doubt. The benefits which will accrue include the conservation of soil and water, the diminution of flood damage both to private property and to public works such as railways and roads, the local production of timber and firewood and the substitution of locally-grown forest produce for many purposes for which at present materials are imported at high cost from abroad.

18. In addition to the benefit which it brings in its train, forest development has the additional advantage that it is in general cheap when compared with development in other directions. A large amount of afforestation can be carried out without artificial planting and sowing by a process of natural regeneration, the area to be afforested being protected from interference in the form of cutting, grazing, burning and cultivation for a period during which seeds, seedlings and root-stocks already present in the soil are allowed to develop and re-cover the land.

Fencing, which is apt to be an expensive item, can often be dispensed with if the village watchmen do their duty properly, being erected only at specially vulnerable places such as in the vicinity of cattle tracks. Even in the most difficult areas, as on the steep bare slopes above Tiberias where the only means of preventing catastrophic flooding has been the construction of contour trenches at close intervals, the expenditure involved in the operations is only about £P.1 a dunum.

E. COST OF DEVELOPMENT PROGRAMME.

19. In the statement below are given figures showing the expenditure of the Forest Department as proposed in the draft estimates for 1936-37 when the department was first formed and the provision made for the department in the budgets of that and succeeding years. For the purpose of the statement, the expenditure is divided into three categories, personal emoluments, consequential establishment charges and forestry operations. The consequential establishment charges include such items as transport and travelling, uniforms, camp equipment, office contingencies and the like; the charges for forestry operations include the provision made for such operations as afforestation, nurseries, surveys, departmental extraction of produce, and research. The bulk of the latter expenditure is incurred on the maintenance on a minimum scale of such forest areas as exist and little or nothing has recently been allowed for further expansion. At the foot of the table is given the expenditure which, it is anticipated, will have to be incurred annually under the same heads should a development programme of the scope already discussed be sanctioned, but excluding the cost of such development.

	<i>Personal Emoluments</i>	<i>Contingent Establishment Charges</i>	<i>Forestry Operations</i>	<i>Total</i>
	£P.	£P.	£P.	£P.
1936-37 (Original estimate)	10,879	6,089	15,545	32,513
1936-37 (Budget)	10,377	4,963	10,040	25,380
1937-38 (Budget)	11,715	5,052	10,154	26,921
1938-39 (Budget)	11,867	5,494	8,307	25,668
1939-40 (Budget)	10,755	4,334	4,911	20,000
1940-41 (Draft estimate)	11,113	4,270	5,173	20,556
Proposed	16,500	6,980	11,900	35,380

The inauguration of an extensive development programme will necessitate the addition to the permanent technical staff of the department of a certain number of Assistant Conservators, Inspectors, Rangers and Foresters. But, even with such a programme of operations, the basic expenditure of the department will be less than £P.3,000 in excess of the amount estimated as its normal recurrent expenditure when it was formed.

20. The cost of development on the scale described is smaller than might perhaps be expected. The Conservator considers that, in order to obtain the best results, the first two years must be spent largely in organizing and training staff, although during them energetic measures of reconnaissance, reservation, survey and delimitation will be carried out. During these two years a small forest station, including a modest training school, will be constructed, at a cost of £P.3,000, probably in the Balad-esh-Sheikh forest near Haifa, where is situated the largest block of state forest at present under management. Thereafter, for the next eight years, an average sum of £P.15,000 will be required for development each year or £P.120,000 in all, beginning with £P.5,000 in the first year of the eight and rising to £P.19,000 in the fourth. A sum of £P.1,000 will also be needed each year for the construction of further forest stations. Should development be suspended at the end of the ten years' period, Government will have to bear a residual cost on behalf of the department of about £P.40,000, being about 20 per cent. more than the amount entered in the original draft estimates of the department fifteen years earlier and about twice what is being spent at present.

21. The annual expenditure anticipated during the ten years' period is tabulated below :

<i>Year</i>	<i>Basic expenditure (including increments)</i>	<i>Construction of forest stations and school</i>	<i>Development</i>	<i>Total</i>
	£P.	£P.	£P.	£P.
First	35,380	2,000	—	37,380
Second	36,000	1,000	—	37,000
Third	36,500	1,000	5,000	42,500
Fourth	36,900	1,000	10,000	47,900
Fifth	37,400	1,000	15,000	53,400
Sixth	38,000	1,000	19,000	58,000
Seventh	38,500	1,000	18,500	58,000
Eighth	39,000	1,000	18,000	58,000
Ninth	39,500	1,000	17,500	58,000
Tenth	40,000	1,000	17,000	58,000

22. The comparatively small expenditure under development is attributable to the fact that much of the afforestation can be effected by natural regeneration, necessitating little outlay beyond the pay of village watchmen. Elsewhere the money will be spent mainly on comparatively unskilled labour, that is to say, on the labour of local villagers supervised by trained Forest Guards, the cost of nursery operations being charged to the amount included for forestry operations in the figures of basic expenditure.

CHAPTER VI.

EDUCATION.

A. GENERAL.

There are two educational systems in Palestine, the Arab and the Jewish, inevitably separated from each other by the languages of instruction which are, respectively, Arabic and Hebrew. The Arabic public educational system is directly administered by Government, whereas the greater part of the Jewish system is administered through the Va'ad Leumi, assisted by Government grants calculated annually on the basis of a comparison of the school-age population of the Arab and Jewish communities. The grant to which Jewish education may be deemed to be entitled is thus a percentage (at present 26.74 per cent.) of the amount devoted by Government to Arab education.

2. Arab education may conveniently be considered under two heads, town education and rural education.

B. ARAB EDUCATION.

1. TOWN EDUCATION.

(a) Improvement of existing facilities.

3. At no time since the Occupation has the provision of school-places satisfied the popular demand and up to 1932 the annual number of admissions remained practically stationary in spite of the rapidly increasing population. In the following year, on the recommendation of a special Committee, the annual number of admissions in towns was doubled, a course which committed Government to a doubling of the total number of lower elementary school places within a period of six years. Funds for this development were not, however, forthcoming when the time came, although the additional number of children continued to be admitted, with the result that school buildings are now crowded in a manner dangerous to health and incompatible with efficiency while nearly all teachers are seriously overworked.

4. One of the main difficulties in the way of re-organization is the unsuitability of the buildings in which schools are housed. The number of permanent buildings provided by Government for scholastic purposes is very small; for the rest, schools are housed either in State Domain buildings inherited from the Ottoman regime, many of the rooms in which are unsatisfactory as classrooms owing to their small size or unusual design, or in private houses hired for the purpose. A private house used as a school may be expected to be inconvenient in many ways too obvious

to recount. It is enough to point out that almost invariably the rooms are too small to accommodate an elementary class of the maximum size compatible with efficiency. The result is that either the proportion of teachers to pupils throughout the country must be increased at great recurrent cost or that the classrooms must be overcrowded or that pupils must be rejected. In some degree all these expedients have been adopted at different times. At the present moment pupils who should be admitted are being turned away and the classrooms available are gravely overcrowded to the detriment both of efficiency and health.

5. The system of hiring accommodation is highly uneconomical. The satisfactory adaptation of dwelling houses to school purposes is practically impossible, but even the mitigation of their unsuitability and the provision of sanitary conveniences for large numbers of children in a confined space has involved considerable capital expenditure. Leases, by local custom, are for short terms and on their expiry Government must normally choose between renewal at a higher rent or transfer to another house and the expenditure of more capital on reconditioning.

6. There are at present 26,000 school places in town schools. Of these, some 11,000 are satisfactorily accommodated. 11,090 are housed in 253 rooms in unsuitable hirings while some 3,850 are provided for in 82 unsatisfactory rooms in State Domain buildings.

7. The first and most urgent need of the town schools is the proper accommodation in buildings with standard classrooms of the pupils already enrolled. 230 such rooms would accommodate the 11,090 children at present housed in the 253 unsuitable and unhealthy rooms in hirings. There would thus be a saving of 23 classrooms and of 23 teachers. In addition, there would be an annual saving of £P.6,180 in rent.

8. The cost of the necessary buildings would be:—

In 3 large towns :	4,180 places	@	£P.22.770	=	£P.95,179
In 17 small towns :	6,910 places	@	£P.13.500	=	£P.93,285
Sites					£P.23,800
				Total :	<u>£P.212,264</u>

9. Second only in importance to the replacement of hirings is the replacement of the 82 unsatisfactory rooms in State Domain buildings, which at present accommodate about 3,850 pupils, by new buildings containing in all 77 standard classrooms. Here again there would be a saving in teachers and the old buildings would become available either for sale or for other use. The cost of these new buildings would be:—

3,850 places	@	£P.13.500	=	£P.51,975
Sites			=	£P. 2,400
			Total :	<u>£P.54,375</u>

10. It is, of course, most regrettable that, when parents are clamouring for the admission of further children to school, so large an expenditure should be necessary in order to accommodate properly those already admitted. But the Director of Education has urged that, so disorganized are the classes at present and so inefficient and unhealthy are the arrangements, it is essential that proper schools should be constructed for the existing pupils before any new development is undertaken.

11. No additional expenditure on maintenance is anticipated as a result of the scheme. This charge will be borne by the local educational authorities and it should be materially lower than the cost of maintaining the present hirings which are often in a dilapidated condition.

(b) Development of Town Education.

12. Coming now to the question of development, the ultimate aim of any school system must be to provide universal elementary education and this is, in fact, provided under the Jewish system. It would, however, be impossible on grounds both of expense and of paucity of teachers to contemplate any such development of the Arab system in the reasonably near future and the most that is proposed is that, during the next ten years, accommodation shall be provided for those children who are at present actually seeking education but who are being refused it on account of lack of room.

13. In 1939, 12,897 children applied for admission to town schools, of whom 5,707 only could be accepted, no less than 56 per cent. of the applicants being rejected on the ground that accommodation for them was not available. It is estimated that, if provision is to be made for all applicants for elementary education in towns during the period 1941 to 1951 (after allowance has been made for the absorption of a reasonable proportion of them in private schools), 52,700 places in the lower elementary grades and 9,300 places in higher grades, or 62,000 places in all, will be required. 26,000 places are already available leaving a deficiency of 36,000 places.

14. The estimated average capital cost of providing a school place is £P.17, including site, building and equipment. The annual recurring charge involved in each such place is £P.4 in the lower elementary grade and £P.8 in higher grades. On this basis, the over-all average recurring cost per pupil is £P.4.6. The present cost per pupil is £P.4.23, but this figure is immoderately low and only obtained by overworking the teachers and increasing the size of classes beyond the limits set by minimum efficiency. It may be mentioned in this connection that, in the Jewish system, the corresponding over-all figure is about £P.8 per pupil, the number of Jewish pupils being approximately the same as the number of Arab children being educated in Government Arab schools.

15. The additional cost of providing education in town schools for all applicants (the number of applicants in each year is about three quarters of the number of children who attain the age of six years in that year) will thus be as follows:—

Capital Expenditure.

Accommodation for 36,000 additional school places @ £P.17 a place	= £P.612,000
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Recurring Expenditure.

Total expenditure involved in maintenance of 62,000 school places :

52,700 lower elementary places @ £P.4 a place	= £P.210,800
9,300 higher grade places @ £P.8 a place	= £P. 74,400
Total :	= £P.285,200
<i>Less</i> present cost of existing 26,000 places	£P.110,000
Cost of additional 36,000 places	£P.175,200

As against this expenditure there will be a small additional revenue in fees estimated at £P.4,188 a year.

16. One further development of town education is required. Education in most villages does not extend beyond the first four standards and there is at present no provision whereby promising boys can proceed to a higher stage. Among Moslems it is against tradition for boys over the age of nine or ten to be allowed to lodge with other than near relatives and consequently, if a village boy desires education above the village standard, he has to fend for himself in the neighbouring town usually under most undesirable conditions. Such boys buy and cook their own food and sleep wherever they can find a corner, often in the precincts of the mosque. It is known that many of these boys come under the influence of criminals and perverts.

17. Only at three rural centres, Jenin, Tulkarm and Lydda, has any provision for boarders from the neighbouring villages been made by Government. Small boarding hostels have been opened at these three centres; fees are charged but remissions are allowed to poor pupils, all of whom are selected for merit. It is now proposed that twelve new boarding hostels, each with accommodation for forty boarders, should be established at twelve further centres, thus, on the one hand, enabling promising village boys to proceed from the village schools to higher ele-

mentary and secondary education and, on the other, relieving the unsatisfactory conditions of some of the village-boys who are now lodging in towns and attending the higher classes of Government schools.

18. The boarders could be accommodated either in buildings specially constructed or in houses hired for the purpose and the cost will vary accordingly. The former would be the more satisfactory arrangement, but the objection to hired buildings is not nearly so strong in the case of buildings used for residential purposes as it is in the case of buildings used for schools. It is estimated that, if the twelve hostels were specially built, the capital cost of the scheme would be £P.54,960 and the recurring charges, after deducting revenue from fees, £P.5,952. If, on the other hand, buildings were hired, the capital cost would be reduced to £P.5,760 and the recurring charges increased to £P.8,112.

2. VILLAGE EDUCATION.

(a) Extension proposed.

19. The declared policy of Government in the matter of village education is as follows :—

(a) to strengthen existing schools —

(i) by the completion of the lower elementary stage (four standards) in the smaller villages,

(ii) by the completion of the higher elementary stage (seven standards) in the larger rural centres;

(b) to open new boys' schools in villages with a male population of not less than 300 which affords a lower elementary school population of about 40, and to develop the four lower standards which is the minimum without which the work of the school is wasted;

(c) to open girls' schools wherever possible and to develop at least four standards in each.

20. Unfortunately, as a result of the disturbances, financial provision has never been made for the implementation of this policy but, owing to the exigencies of the situation, the number of admissions has been increased with a consequent overcrowding of rooms and overworking of teachers. Even so, 40 per cent. of the applications for education on behalf of children in villages where schools exist had to be refused in 1939. In very many villages there are no schools and consequently no applications for entry, though the demand for the provision of schools is incessant.

21. The first need of the situation is to complete the number of standards in existing schools to four or seven, as the case may be, and

to provide adequate accommodation, school materials and staff to enable the teaching to be effective. This will necessitate the addition of 3,300 school places in 66 classrooms. Half the cost of accommodation in villages is usually met by the village itself, and as the village school is of the simplest possible type Government's share of the capital cost is estimated at only £P.7,260. The additional annual cost of staff and materials will be about £P.9,080.

22. The second need is to extend the school system so as to provide education for all boys in villages which at the last census had a male population of 300 or more (in villages the demand for admission to boys' schools is practically 100 per cent. of the male school-age population) and for girls to an extent adequate to the popular demand and practicably attainable with the teaching personnel which can be created within a period of ten years. There are at present 30,000 pupils in village schools and 3,300 more places are required for the reorganization described in the previous paragraph. The extension of the system, to the extent adumbrated in this paragraph, will necessitate the addition of 160 rooms, accommodating 8,000 pupils, for boys and of 56 rooms, accommodating 2,800 pupils, for girls. The capital expenditure involved, half the cost being met by the villages, will be £P.23,760; the recurring expenditure, estimated at £P.3 per place, will be £P.32,400 per annum.

(b) Farm Schools.

23. A further very desirable extension of rural education is the establishment of farm schools. The Arab rural population depends almost entirely on agriculture for its livelihood and few manage to do more than exist with difficulty. The Department of Agriculture does its best to give instruction in improved methods of agriculture through its Inspectors and by means of demonstrations and propaganda, but undoubtedly the best means of bringing about solid improvement would be for selected Arab farmers' sons to be given a severely practical course in farming as soon as they are physically strong enough to undertake it. Everything used on the course would be of such a nature that it could be introduced to an average Arab farm without difficulty. The courses at the existing agricultural school at Tulkarm are much too advanced for the purpose in view; they are intended rather for the production of agricultural specialists and teachers than for the training of boys who will return to farm their own or their parents' holdings.

24. It is accordingly proposed that four farm schools should be established in rural Arab areas, each school accommodating about a hundred selected village boys who have completed their village school education. The courses would be so arranged that they would be completed when the boys reached the age of approximately sixteen years, by which time they would be old and strong enough to put into practice

on their parents' farms what they had learnt in the school. The estimated cost of the four schools would be approximately £P.40,880 in initial capital outlay and the annual expenditure required to maintain them would amount to approximately £P.11,600.

(c) Training of Rural Teachers.

25. It is further essential that the training of rural teachers should recommence. Until 1936 this was part of the work of the Tulkarm Agricultural School and should be among its most useful functions, as it affords ample facilities for the purpose. It involves no additional cost beyond the boarding expenses, estimated at £P.600 a year, of students who are unable to pay fees.

3. MISCELLANEOUS PROPOSALS.

(a) Departmental Establishment, Scholarships and Supplies.

26. Certain additional administrative posts are necessary at the headquarters and district offices of the department, of which the administrative establishment has remained practically unchanged in numbers for many years in spite of the increase in the number of children undergoing education. During this period the work of the Department has been increased by the addition of the Probation Service, Boys' Reformatories, the Welfare Service, the Government Trade School and other activities. There has been an increase in the Arab public school population from about 31,000 in October, 1933, to about 56,000 in October, 1939, while on the Jewish side the public school population has almost trebled since 1928 when the present establishment of Jewish inspectors was fixed.

27. The additional establishment envisaged includes an Accounts and Establishment Officer (in accordance with a principle accepted by Government that such officers should be attached to major departments), an Inspector and Assistant Inspector on the Jewish side, a Registrar (this post was formerly in existence but was suppressed) and certain clerical assistance. The total cost of these appointments will be £P.1,632 per annum. In addition, grants amounting to £P.2,737 which were previously made for transport, travelling, materials for technical instruction and scholarships abroad require to be re-instated.

(b) Preparation of Text-books.

28. The preparation of further text-books for Arab schools is also a matter of urgency. Arabic text-books published by neighbouring countries deal almost exclusively with the history, geography, etc., of those countries and are consequently of little use in Palestine. Arrangements have been made with a well-known publisher in England who is

prepared to send writers to Palestine to produce suitable text-books in consultation with the department; these are translated locally and the publisher recoups himself by the sale of the books, the purchase price of the copies ordered being Government's only commitment. So far an Arabic atlas and a history reader for the 3rd elementary class have been produced on this system; a history reader for the 4th elementary class and a geography reader for the 3rd elementary class have been prepared in English and are ready for translation into Arabic, and a history reader for the 5th elementary class is in course of preparation. It is now necessary to provide the funds for purchasing the above three readers when ready and two further geography readers which are projected. Until these books become available for pupils the teaching of history and geography in the whole Arab system must remain largely ineffective. It was originally proposed to obtain the books in question during the triennium 1937-40, but the provision made for the purpose was excised from the estimates. The cost of the required original supply of the five books will be £P.4,976 and after four years there will be an annual expenditure of £P.1,244 on replacements.

(c) Government Arab College.

29. An important position in the Arab educational structure is held by the Government Arab College, which is the only institution in Palestine capable of maintaining a high standard of academic education through the Arabic language. It attracts the best brains and affords the only approach for the poor but clever boy to the learned professions. All pupils in the Arab College are selected by merit, that is to say, are 'scholarship' boys. Those who can afford fees are required to pay them but over fifty per cent. cannot.

30. Until 1935, the Arab College was conducted in hired private houses and had no adequate playing fields. The scheme for the present college, which was approved in 1928, provided for an institution to house 150 students being constructed in three stages. The first stage only has been completed; it affords accommodation for 66 students but there is no proper provision for library, chemical laboratory or physics lecture room and there are no recreation rooms of any kind. The need for the second stage, which provides for 46 additional school places, physics and chemical laboratories, a library and reading room and resident masters' quarters was recognized by Government and approved by the Secretary of State in 1935, the proposal being unanimously endorsed by the Advisory Committee on Education in the Colonies. Government decided, however, not to proceed with the scheme.

31. It is now necessary not only to complete the second stage but also to carry out the third stage, bringing the number of places to 150. One of the main objects of the proposal is to lengthen the period of stay

in the college, boys being taken at an earlier age than at present and the course for the training of teachers being extended. It is intended that boys should join at the age of 14 or 15 and that four full secondary classes with 24 to 28 boys in each should be organized and three post-secondary classes for teachers in training averaging 15 students in each. This reform will not only provide a wider and more comprehensive field of selection but will ensure that all students in the college have from four years, and future teachers from seven years, under discipline in a suitable environment. At present students do not stay in the college long enough for the benefits of a boarding school to make themselves sufficiently apparent.

32. The cost of completing the construction of the college to the scale above proposed is estimated at £P.25,450. There will be an increase of £P.2,150 in recurrent charges, of which £P.1,032 will be covered by fees. Little or no increase in teaching staff will be required; the teachers are there but at present the boys are not there to teach in the number which each teacher could efficiently serve, a highly uneconomical arrangement.

(d) Women's Training College.

33. While the Arab College is in urgent need of reorganization, the Women's Training College is in as bad or worse case. It is accommodated in four unsuitable hirings in the middle of Jerusalem, and although the students are mostly Moslem and the hirings are located in a quarter no longer inhabited by Arabs, the premises are not enclosed and the dormitories are overlooked by neighbouring houses which are only a few metres away. There are no baths beyond three showers, situated in an outhouse. The accommodation for both staff and girls is inconvenient in the extreme and most uneconomical in teaching staff; with proper accommodation the staff which now instructs some 60 students would be sufficient for nearly double the number. For these unsuitable quarters Government pays £P.1,345 a year.

34. It is proposed that permanent buildings should be provided to accommodate 150 students, together with the Principal, eight resident mistresses, a matron and the necessary servants. The capital cost is estimated at £P.69,100 and the additional recurrent expenditure at £P.2,250 which, however, will be more than covered by a saving of £P.1,345 in rents and additional fees to the extent of £P.1,080.

4. EXPENDITURE PROPOSED.

35. The total expenditure necessary to give effect to the proposals made in this chapter is as follows :—

ARAB PUBLIC SCHOOL SYSTEM.

	<i>Capital Expenditure</i>	<i>Recurrent Expenditure</i>	<i>Revenue or saving in rentals</i>
	£P.	£P.	£P.
TOWN EDUCATION			
Replacement of hirings	212,264	—	6,180
Replacement of unsatisfactory rooms in State Domain buildings	54,375	—	—
Extension of town schools	612,000	175,200	4,188
Boarding hostels for village boys.	54,960	9,552	3,600
VILLAGE EDUCATION			
Completion of existing schools	7,260	9,080	—
Extension of village schools	23,760	32,400	—
Farm schools	40,884	11,568	—
Training of rural teachers	—	600	—
MISCELLANEOUS PROPOSALS			
Administration, Scholarships and Supplies	—	4,369	—
Arabic text-books	4,976	1,244	—
Government Arab College	25,450	2,150	1,092
Women's Training College	69,100	2,250	2,425
TOTAL : ARAB PUBLIC SCHOOL SYSTEM	<u>1,105,029</u>	<u>248,413</u>	<u>17,425</u>

JEWISH PUBLIC SCHOOL SYSTEM.

Grants at the rate of 26.74 per cent. of amount allocated for Arab System

	295,485	66,426	—
TOTAL :	<u>1,400,514</u>	<u>314,839</u>	<u>17,425</u>

36. This expenditure would be spread as follows over the ten years' period :—

<i>Year</i>	<i>Capital</i> £P.	<i>Recurrent</i> £P.	<i>Total</i> £P.
First	340,786	20,728	361,514
Second	325,278	93,299	418,577
Third	309,152	159,964	469,116
Fourth	246,949	218,448	465,397
Fifth	166,740	266,778	433,518
Sixth	11,609	313,303	324,912
Seventh	—	315,416	315,416
Eighth	—	315,513	315,513
Ninth	—	315,609	315,609
Tenth	—	315,705	315,705
Total :	1,400,514	2,334,763	3,735,277

C. JEWISH EDUCATION.

37. As regards the Jewish system, it might seem inappropriate that, because Government replaces hirings by permanent buildings at great expense, a corresponding grant must necessarily be made to the Jewish educational authorities. But we understand from the Director of Education that accommodation in many Jewish schools suffers from the same defects as does that in Arab schools and that there is no doubt that a non-recurrent grant-in-aid proportionate to this and other capital expenditure on Arab schools could be profitably spent under Government control in the Jewish system.

38. As regards the proportionate recurrent grant for which the Director considers that Jewish education is eligible, he advises that Government should not necessarily pay over a block sum to the Va'ad Leumi as sole beneficiary but should retain control over the distribution of grants for various objects and to various Jewish educational authorities. The Director considers that the Va'ad Leumi system is loosely constructed and administered, that its costs are high and that its resources are often applied without clear aim or careful prevision. He considers that, without retrenchment of present educational services, certain adjustments together with careful administration would make available from existing revenues a considerable sum which could be devoted to expanding and improving Jewish education. Until this is done it will be difficult to ascertain what educational services in the Jewish system most need and deserve assistance. Accordingly the Director advises that the Va'ad Leumi, as being in titular control of the larger part of the Jewish system, should be required to put its house in order before any actual payment is made of any amounts for which, under the existing formula, it would become eligible were the proposals now made in respect of Arab education implemented.

39. We do not dissent from the Director's opinion although it is clear that any discussion of the issue involved would take us far beyond our terms of reference. We are only concerned to agree with the Director that a proportionate grant for recurrent educational services in the Jewish system must be regarded as a conditional liability upon Government if effect is given to any or all of the proposals made for the extension of Arab education. If the procedure for actual disbursal of sums by Government from this grant is such that by the action of the Va'ad Leumi the administration of the Jewish system is tightened and its efficiency increased, this will be an important gain additional to the more specific advantages derived from the application of various sums to the particular objects selected by Government.

D. CONCLUSION.

40. To conclude this chapter, we do not think that we can do better than reproduce *in extenso* four paragraphs from Chapter XVI of the Report of the Royal Commission.

"13. It is most regrettable that, after 17 years of Mandatory rule, the Government system is able to satisfy no more than half the Arab demand for education. Of recent years nearly 50 per cent. of the applicants for entry into schools, in areas where schools exist, have had to be refused for lack of teachers and accommodation; and this makes no allowance for the unsatisfied demand in areas where no school has yet been built within accessible distance. Out of an Arab population of school-age estimated at about 260,700, only 42,700 approximately are at present accommodated in Government schools; and Arab witnesses calculate that about 85 per cent. of the fellahin are still illiterate. This is the more deplorable in that many Arab villages are willing, if only Government will do its share, to contribute towards the erection of school buildings. The inadequacy of the schools was one of the points stressed in anti-British propaganda in Palestine during the Abyssinian crisis.

"15. The supply of trained teachers is severely limited. The output of them from the Government Arab College suffices for the replacement of losses through illness or retirement, but not for the full staffing of new schools. The construction of this College, approved by the Secretary of State in 1928, was postponed by Government for one reason or another until 1935; only the first part of the plan has actually been completed, and until the Government rescinds its refusal to countenance any extension of the buildings, no effective increase can be achieved in the output of teachers. The Government Women's College is even less adequately housed in hired buildings, and there is a more serious lack of women teachers than of men.

"17. It seems to us unfortunate that the Administration has been unable to do more for education. Its share of the total expenditure is not only small, but the percentage has been perceptibly falling since 1933. Of course there are other expensive services, with Security at their head, for which the Government has been compelled to make provision: but we cannot help thinking that, if the claims of education had been rated as high as they deserved, more money might somehow have been found for it, at the expense, for instance, of such material needs as public works of a not vitally urgent kind. It is not only the intrinsic value of education that should be considered. Any efforts to raise the material standards of life among the fellahin, such as by instruction in improved methods of agriculture, can only be successful if they have received sufficient mental training to profit from technical instruction. This fact was clearly emphasized by Sir John Hope Simpson, who pointed out in his Report that

'In every village complaints are made on the score of the inadequacy of educational facilities . . . No agricultural development is possible among the Arabs until steps are taken to remedy the present state of affairs . . . Until facilities for ordinary primary education are more general than is the case at present, the fellahin will not be in a position to benefit generally by any special agricultural education that may be offered.'

The same writer advocated an ordered plan of expansion in education, and concluded that

'It is clear that the Government of Palestine must face very considerably increased expenditure on education, both primary and agricultural.'

"24. We sympathize with the Arab 'grievance' that not enough money has been provided for Arab education and, though all the social services would be bound to suffer from the mounting cost of public security which the maintenance of the Mandate must in our view entail, we think that, considering the inadequacy of the existing provision for Arab education and the willingness of the Arabs to make sacrifices to increase it, the Administration should regard its claims on the revenue as second in importance only to those of public security."

CHAPTER VII.

HEALTH.

A. PRESENT POSITION OF PUBLIC HEALTH SERVICES.

The policy of the Department of Health, as approved by the Government and the Secretary of State, is summarized below :—

- (a) To concentrate on public health, sanitation and the prevention of disease.
- (b) To provide hospital accommodation for dangerous, infectious and communicable diseases and mental diseases.
- (c) To limit, so far as possible, the hospital accommodation provided by the Administration to the requirements of Government officers and employees, members of the Police Force, prisoners, medico-legal cases and accidents, and the very poor.
- (d) To provide hospitals, or to aid municipalities to provide hospitals, for the needs of the general population where no provision or inadequate provision is made by voluntary organizations.

This policy, which was prescribed when the department was first organized in 1920, still governs its activities, the general medical and surgical care of the public being left to private practitioners and to private or charitable medical institutions.

2.—(a) The present organization consists of :—

- (i) General section, including administration, finance, personnel, medical stores, town planning, village water supplies and new projects.
- (ii) Medical section, including hospitals, dispensaries, school medical services, prisons, and specialist surgeon and pharmacy sub-sections.
- (iii) Sanitary and epidemic section, including urban and rural sanitary engineers, regulation of trades and industries and food control sub-sections.
- (iv) Endemic disease section, including ophthalmic, tuberculosis, venereal disease, hookworm, and village latrine services.
- (v) Laboratory section, including Government Analyst and agricultural laboratory sub-sections and vaccine and anti-rabic institutes.

(b) A district health administration consisting of four medical divisions of Palestine under British Senior Medical Officers who control :—

(i) 18 sub-districts, each under a Palestinian medical officer responsible for all medical, health, sanitary, epidemic, malarial, endemic and medico-legal duties in the principal towns of the sub-district and in villages and settlements.

(ii) 6 Government hospitals under Palestinian medical officers, 2 mental hospitals, 1 maternity hospital annex and 5 training centres for nurses and a school for midwives.

(iii) 21 Government clinics.

(iv) 3 special ophthalmic clinics, a travelling clinic, 9 smaller ophthalmic clinics conducted in connection with general clinics in the lesser towns and 20 first-aid eye units.

(v) 40 (34 Government and 6 municipal) infant welfare and maternity centres.

(vi) 4 gynaecological and ante-natal centres, and subsidiary clinics.

(vii) A school medical service.

(viii) 3 infectious hospitals.

(ix) 2 district public health laboratories at Jaffa and Haifa.

(x) One casualty post.

(xi) A quarantine service at 5 ports and 3 aerodromes, including one main lazaret.

(xii) A general anti-malarial service and special urban services in conjunction with municipalities in 19 towns.

(xiii) 19 anti-rabic treatment centres.

(c) A railway medical service, including medical attendance on the British community in the Haifa area and the specialist surgical work of Haifa hospital under the Senior Medical Officer, Railways.

(d) Endemic diseases service under each Senior Medical Officer for measures of control of ophthalmic disease, tuberculosis, syphilis, schistosomiasis and ankylostomiasis.

3. It is worthy of note that, of all departments, the work of the Department of Health was least interfered with by the recent disturbances. Anti-Government feeling in no way prevented the Arab population from

taking advantage of Government hospitals and clinics. Indeed, the attendances of out-patients at Government clinics increased from 284,516 in 1935 to 473,462 in 1939.

4. The Government Department of Health, in so far as its clinical and hospitalization services are concerned, serves primarily the Arab section of the population. Ever since the Occupation the Jews have preferred to maintain their own medical institutions. And although the Hadassah medical services are, as are all Government medical services, available to all communities in Palestine, Jews go in general to the Jewish and Arabs to the Government institutions. But while this is the position with regard to general cases, it is otherwise for infectious patients, for whom Government provides the accommodation required, and for the mentally afflicted who enter Government institutions in about equal numbers from both communities.

5. The Hadassah Medical Organization supports a hospital in Jerusalem and a tuberculosis hospital in Safad and participates in the maintenance of a Jewish community hospital in Haifa. It also operates a school medical and ophthalmological service and a widespread infant welfare service. The Medical Benefit Society (Kupat Cholim), formed under the aegis of the General Federation of Jewish Labour, has developed a large system of clinics throughout the country and possesses a general hospital near Affula and a hospital for surgical and maternity cases at Petah Tiqva. In recent years, a Rural Sick Benefit Fund has been created with the object of taking over from the Hadassah the maintenance of clinics in rural areas formerly managed by that organization for the benefit of settlers who do not qualify for membership of the Medical Benefit Society.

6. Government has assisted the Medical Benefit Society by capital grants towards the construction of the hospitals at Affula and Petah Tiqva, and annual subsidies are given to the Hadassah tuberculosis hospital, the school medical service and the infant welfare service. An annual grant is also made to the municipal hospital at Tel Aviv. Government grants to Jewish institutions during the last three years have amounted on an average to approximately £P.12,500, of which sum the Tel Aviv hospital receives rather more than half.

7. In 1937/38, the total expenditure on medical services incurred by the three Jewish organizations mentioned was £P.342,827. The appropriation for expenditure by the Government Department of Health in the same year (which includes, of course, the cost of general public health services as well as of medical activities) was £P.215,223.

8. While, within the limits of the funds available, Government has successfully established and maintained the foundations of public health

services, there are still gaps and deficiencies which badly require to be made good. It is with these gaps and deficiencies that this chapter deals. The proposals made for filling them may be conveniently grouped under four heads, new projects, extension of existing services, village medical work and uplift, and miscellaneous.

B. NEW PROJECTS.

1. TREATMENT OF TUBERCULOSIS.

9. Perhaps the greatest deficiency in the Government's hospitalization arrangements is the lack of any provision for the special treatment of tuberculosis. A survey undertaken in 1935 revealed no less than 5,000 untreated cases. As already mentioned, there is a small Jewish tuberculosis hospital at Safad, but this is not in general used by other than Jewish patients, while the high cost, approximately £P.1 a day, of obtaining treatment in neighbouring countries places this solution outside the reach of the vast majority of sufferers. The resulting position is a very serious one seeing that there is no tubercular immunity in Palestine and that tuberculosis is particularly communicable among families and in schools.

10. As a result of the survey referred to in the preceding paragraph, financial provision was made in the approved estimates for 1936/37 to enable the necessary first steps to be taken towards rectifying the deficiency. But the situation which developed as a result of the disturbances rendered it imperative to conserve Government's resources, and the grant was subsequently withdrawn.

11. The proposals for dealing with tuberculosis involve the construction of a sanatorium hospital, the provision of an adequate dispensary service and the maintenance of a home for advanced cases. An extension of the infant welfare and school service for the same purpose is dealt with in paragraphs 25 and 34 of this chapter.

12. The tuberculosis sanatorium hospital will be situated in the hills (the site in Nazareth originally selected for the hospital has since been utilized for other purposes and a new one will have to be found) and will be constructed in two stages. The first stage, providing for 60 beds, will involve a capital cost of £P.58,000 and its running expenses will be approximately £P.4,000 per annum. The second stage, which will be deferred for five years, will cost £P.42,000 and will add an additional 140 beds, bringing the total accommodation provided to 200 beds. The running expenses of the hospital, when complete, will be about £P.8,000 per annum.

13. The proposed dispensary service involves only a very small capital expenditure on special equipment, estimated to cost £P.200. The object

of the service is to provide a tuberculosis dispensary system for the towns of Jerusalem, Jaffa, Haifa and Nablus and for the inauguration of special tuberculosis clinics to be held periodically in the other towns of Palestine. A small staff of specialist doctors and nurses will be in charge of the four main dispensaries; their duties will include visits to the other urban clinics as well as tours of villages where out-patients will be examined with a view to ascertaining which of them are suitable for sanatorium treatment. It is intended that this service also shall be brought into being in two stages; the recurrent expenditure during the first stage will be £P.3,000, rising to £P.5,000 when the whole scheme is in operation.

14. The home for advanced cases, which is intended for the accommodation of incurables, will provide for 30 beds; it will probably be situated at Beit Safafa, where the necessary facilities can be provided at a minimum cost. The capital expenditure is estimated to amount to £P.3,000, the annual recurrent charges to £P.2,200.

2. MENTAL HOSPITALS.

15. Next in importance after provision for tuberculosis cases is an improvement in that now made for those mentally afflicted. Government at present maintains two mental hospitals in Bethlehem, housed in hired buildings, one containing 105 beds and the other 52, while the Jews maintain a voluntary hospital of 60 beds for mental diseases in Jerusalem. The accommodation afforded by these institutions is totally inadequate, and results in 300 serious mental cases remaining at large.

16. This lack of accommodation brings further deleterious consequences in its train. There exists at Bnei Braq a so-called mental home which Government has never recognized owing to the unsuitability of the accommodation afforded and the inadequacy of the staff employed. Yet Government is debarred from demanding its closure, since it has nothing to offer in its place; whatever the shortcomings of the institution in question, it at least performs the valuable service of keeping dangerous and possibly homicidal lunatics off the streets of Tel Aviv. A position of affairs which prevents the Government from requiring the closure of unrecognized asylums has only to be mentioned to be condemned.

17. It is proposed to give up the smaller of the two hired buildings in Bethlehem, which contains 52 beds, and in its place to construct a new mental hospital of 240 beds on modern lines. This project has been under consideration for more than a decade and a site was purchased eight years ago; provision for capital expenditure has been included in the estimates from 1929 onwards but has invariably been

excised. The implementation of Government's obligations in the matter of the accommodation of lunatics is thus long overdue. The cost of the new hospital will be £P.92,000 and additional recurring expenditure of £P.14,000 will be incurred in its maintenance.

3. HAIFA HOSPITALS.

18. The third important project is for the extension of the accommodation afforded by the new Government hospital at Haifa. This hospital has at present a bed strength of 220 but is constructed so as to permit of extension to a strength of 450. The accommodation provided is already overstrained, and there is a waiting list of some 400 patients. In order to go a small way towards meeting this deficiency, it is proposed to construct the nurses' home, which formed part of the original project, thereby freeing for patients a further 40 beds in the main building now occupied by nurses. The capital cost of the nurses' home will be £P.9,500, and the annual recurrent cost entailed by the extension is estimated to be about £P.3,000.

19. Complementary to the above project is an extension of the existing Jewish community hospital at Haifa. This hospital, which contains only 50 beds, is much too small for the purpose which it is designed to serve; it is, moreover, very inadequately housed in a rented building and two wooden huts. The institution has, in consequence, been obliged to limit admission to surgical conditions. For a number of years the community has been making determined efforts to raise the funds necessary for the construction of a hospital of 100 beds; a site has been selected and funds for its acquisition guaranteed. The estimated cost of the hospital is £P.50,000 and it is proposed that, as has been done in the case of other Jewish hospitals, Government should make a grant of one quarter of the amount, or £P.12,500, to the community for the purpose.

4. TRAINING OF MIDWIVES.

20. One of the functions of the Department of Health is the training of midwives, an activity which is of supreme importance to the well-being of the Arab community. Owing to lack of training facilities, however, the supply of licensed Arab midwives falls far below the demand. The only training centre now in existence is the Princess Mary Maternity Centre in Jerusalem, where 15 Arab midwives are trained each year; at this rate it will take 30 years before the ratio of Arab midwives to Arab population reaches what may be regarded as a satisfactory figure. Whereas, in 1939, there was one licensed Jewish midwife to every 1,500 Jews, among the Arabs the corresponding proportion was only one to 4,000. The training of a larger number of Arab women is a matter of urgent importance.

21. It is proposed that two new centres shall be opened for the purpose, at Nablus and Jaffa, respectively. At Nablus a new storey of 30 beds, of which 15 beds will be reserved for maternity cases, will be added to the existing hospital, and the hospital staff quarters will be re-constructed so as to provide accommodation for the pupil midwives. At Jaffa it is proposed to provide separate accommodation adjoining the grounds of the existing hospital both for maternity cases and for pupil midwives; this will have the incidental advantage of freeing 8 beds in the hospital for general cases, a small but welcome expansion as it is at present much overcrowded. The capital cost of these additions is estimated at £P.10,000 at Nablus and £P.11,500 at Jaffa and the annual maintenance expenses at £P.1,500 per annum at the former and £P.1,100 per annum at the latter centre. Provision for both these schemes was included in the approved estimates for 1936/37, but on grounds of financial stringency the expenditure was not incurred.

5. HOSPITAL IN THE PLAIN OF SHARON.

22. The fifth and last new project is for the construction of a Fever and General Hospital in the Plain of Sharon, to provide hospitalization for Jews resident in settlements in the plain for whom at present no arrangements of any kind are made. There are two Jewish hospitals in the vicinity, the municipal hospital at Tel Aviv and the hospital of the Medical Benefit Society at Petah Tiqva; of these the former is naturally intended primarily for residents of the municipal area, while free treatment at the latter is reserved for members of the General Federation of Jewish Labour. There are thus in the settlements of the plain large numbers of Jews, many of them too poor to be able to afford hospital fees, who are not catered for at all. The position was considered by Government in 1935 and 1936 and the most urgent side of the problem, the isolation and treatment of infectious disease, was met by the opening, in a hired building, of an infectious hospital of 36 beds at Bnei Braq. This does not, however, go nearly far enough towards meeting the needs of the case and it is now proposed that a hospital of 108 beds, for both general and infectious cases, should be constructed, probably near Tel Litwinsky, some seven kilometres from the Jaffa—Tel Aviv boundary. The cost of this hospital, including equipment, is estimated at £P.48,500, and the annual recurrent cost at £P.7,500; as, however, the present infectious diseases hospital at Bnei Braq, which costs £P.3,000 annually to maintain, will no longer be necessary, the net additional recurrent expenditure will be only £P.4,500.

23. The Director of Medical Services further proposed that a new Arab hospital of 20 beds should be constructed at Ramle, which is a thickly populated area and one which is rapidly developing. He agreed, however, that the urgency of this demand would be somewhat diminished

if the recommendation made in paragraph 21 of this chapter were accepted and 8 beds thereby freed in the Jaffa hospital. We are of opinion that the whole question of the hospitalization of Arabs in the Lydda District requires further consideration. The Jaffa hospital, which is accommodated in a municipal building which is in many respects unsuitable, is already overcrowded, there is no space for further extension beyond the small extension for maternity cases which we have proposed in paragraph 21, and the time is bound to come, in the not far distant future, when the question of the provision of new accommodation will become a very live one. It seems to us that it might well be more economical, rather than to construct a hospital in Ramle with the prospect ultimately of constructing another at Jaffa, so to design the new hospital near Tel Litwinsky referred to in the preceding paragraph as to make it capable of future extension to meet Arab needs throughout the district. There is already a joint general hospital for Arabs and Jews at Haifa and we see no reason why the same arrangement should not be adopted here also; the site proposed is well adapted for this purpose, being on the boundary between Arab and Jewish areas. We recommend that consideration be given to this suggestion before the design of the hospital for the Plain of Sharon is finally decided upon.

C. EXTENSION OF EXISTING SERVICES.

1. INFANT WELFARE SERVICE.

24. The Department of Health conducts and shares in the support of 34 infant welfare centres, of which 17 are in villages. In the larger centres there is sometimes a local committee which bears part of the cost and supplies voluntary assistance. In smaller places the village sometimes provides accommodation and servants, while the nurse and equipment are provided by Government.

25. Perhaps none of the health services have proved so popular as this, and it has accomplished more by way of improving the village mother's outlook on life than any other effort. It has made a liberal contribution to the reduction in infantile mortality over the last fifteen years and has to-day assumed a new importance in connection with the anti-tuberculosis campaign. Yet, as is apparent from the paucity of village centres, the department has only been able to touch the fringe of the matter and this is the more regrettable in view of the fact that the service has the virtue of being one in which moderate expenditure reaches large numbers of the population.

26. It is now proposed to concentrate on expanding the village side by the establishment of sixty more centres. This will necessitate additional supervising staff in the form of three British Superintendents of Midwifery and three graduate nurses. The capital cost of the ex-

tension will be about £P.3,000 for equipment and the recurring expenditure, including the cost of the hire of buildings, where necessary, about £P.5,500. The expansion will, of course, take place gradually over a number of years.

27. It is the recognized policy of Government to contribute to the Jewish Infant Welfare Services on a scale proportional to the cost of similar services provided by Government. If the Government services are expanded as proposed, the Jewish services will be entitled, on the basis of the formula at present in use, to an additional grant of £P.1,820 per annum.

2. OPHTHALMIC SERVICE.

28. The second specialized service of the department in connection with which there is an urgent need for expansion is the ophthalmic service. The measures to control ophthalmic disease have been organized in consultation with the Warden of the Ophthalmic Hospital of the Order of St. John in Jerusalem, and medical officers and nurses receive special courses of instruction in ophthalmic work at the hospital of the Order. Nine ophthalmic centres are conducted as branches of the general clinics at the headquarters of sub-districts where eye-disease is prevalent, at each of which specially trained staff is employed.

29. In addition to the above, a special service to control epidemic conjunctivitis is in operation in Hebron and Majdal, consisting of one mobile clinic and of two central clinics at the two places mentioned, each with a medical officer and nurses. In connection with these there are subsidiary first-aid posts in the villages, conducted by medical orderlies under the supervision of the medical officers in charge of the central clinics. It is now proposed to create a third unit based upon the town of Ramle and operating in an area where the incidence of eye disease is exceptionally heavy. Here, as in Hebron and Majdal, the service will consist in the expansion of the existing central clinic with first-aid posts in the villages supervised by a travelling medical officer. The capital cost will be £P.500 and additional recurrent expenditure of somewhat less than £P.2,000 a year will be necessary.

3. VENEREAL DISEASE SERVICE.

30. Another specialist service of the Department of Health is that connected with the treatment of venereal disease. Venereal disease clinics for men are conducted at Jaffa, Hebron and Jerusalem and for women in connection with gynaecological clinics at Jerusalem, Jaffa, Haifa, Acre and Nablus. Clinics are also in operation in selected villages of the Hebron sub-district in rotation, for the treatment of syphilis which is endemic in the area.

31. Two lady medical officers are employed, part of whose duties is the treatment of venereal infections in women. The clinics for males are in charge of Medical Officers of Health, who can devote only a limited portion of their time to the work. Not only has the number of males seeking treatment so increased since the service was inaugurated that the existing staff is inadequate but experience has shown, in Palestine as in other countries, that large numbers of sufferers are unwilling to attend general clinics and that, for the proper control of the disease, separate clinics are essential. It is proposed to construct such clinics at Jaffa and Haifa, and also to employ three whole-time doctors and three additional orderlies on anti-venereal work. The capital expenditure involved is £P.2,000, the annual recurrent charges amounting to £P.1,400.

4. SCHOOL MEDICAL SERVICE.

32. The conduct of a school medical and anti-trachoma service in towns and villages forms an important part of the duties of the Department of Health. This service covers all Government schools and is extended to others on the application of the authority in charge. Children are medically examined on admission to school and on two other occasions during their school career, and the schools themselves are inspected monthly by a medical officer who reports any sanitary defects to the Department of Education. Lectures on hygiene are also given to teachers. An anti-trachoma service is an important part of the school medical service, and the children receive free treatment for malaria, verminous conditions and infectious diseases, including communicable skin diseases. In the principal towns there are school nurses who carry out the daily treatment prescribed by the medical officer. In villages the teacher in charge is trained in simple dressings and the routine treatment of ophthalmic conditions, which he carries out under the instructions of a visiting medical officer.

33. To show the widespread extent of this service it may be mentioned that, in 1939, there were some 61,000 children in 482 schools under supervision by the school medical service, 37,700 children were dealt with at the periodical medical examinations of scholars and there were no less than 2,682,000 attendances for the treatment of eye disease.

34. With the growth of the school population (the number of children under supervision has risen from 45,000 in 1935 to 61,000 in 1939) and with no corresponding increase in medical staff, the service is becoming less complete year by year, and in the large towns it is no longer being efficiently carried out. The service has an importance of its own in connection with the control and treatment of tuberculosis, to which reference is made in paragraph 11 of this chapter. The main trouble is that

there are no whole-time medical officers employed in the branch although the time has passed when it could be effectively controlled by the ordinary Medical Officers of Health in addition to their other duties.

35. It is therefore proposed that three whole-time school medical officers and three additional school nurses should be employed in the three large towns. Provision for this staff was requested by the department as long ago as 1936, and the figures in the preceding paragraph show the extent to which the service has developed since then. The additional annual cost is estimated at £P.2,850. In accordance with the formula in force to govern grants to certain Jewish medical institutions, acceptance of this recommendation will involve an additional grant of £P.2,200 per annum to the Jewish school medical service.

D. VILLAGE MEDICAL SERVICES AND UPLIFT.

36. One of the aims of the Department of Health is to improve the medical services and sanitary conditions in general in the villages of Palestine. Although clinics are held weekly in certain villages, a large number of them seldom see a doctor and patients have to be transported to the nearest large centre for treatment. The comparatively small number of Government doctors in Palestine, their preoccupation with other duties and the large number of villages at which treatment is required all militate against any widespread extension of village services.

37. The experiment has recently been tried of employing private medical practitioners, of whom there are large numbers in the country, for the purpose. With the inducement of a Government subsidy of £P.5 a month, a doctor living in Zikhron agreed to open a clinic in the village of Arara, with a population of 1,000 persons, some 15 kilometres away. He attended twice weekly for five months and was permitted to take fees at Government rates from those who could pay. During the period while the experiment was in force, there were 460 attendances by 214 new patients. The net earnings (including the Government subsidy and deducting the cost of transport and of medicinal supplies) were just sufficient to ensure his regular attendance.

38. There appears to be here the germ of an insurance scheme of practice. The villagers chose their own doctor and provided the clinic. His regular attendance was ensured because a day missed entailed a reduction in the amount of the subsidy. The schedule of charges was made public by notice. A patients' register, coupled with occasional attendance by the Medical Officer of Health during dispensary hours, afforded some control of the treatment. Provision was made for the free care of paupers: there was no charge for quinine solution which is a Government supply: and for a time an ophthalmic orderly was posted to the village and worked under the doctor's directions.

39. It appears to be well worth while to try this simple and inexpensive scheme elsewhere; the Director of Medical Services assures us that it is likely to prove both cheaper and more effective than a system of mobile units, which are expensive to maintain and must be available in considerable numbers if efficient service is to be given. It is proposed, in the first instance, to subsidise 30 rural clinics on the lines described and thus, almost for the first time, to introduce the country doctor in Arab Palestine. As in the case of the rural infant welfare service, a moderate expenditure will here make itself felt over a wide field. The cost of the 30 clinics, at £P.60 each, will be £P.1,800 a year. The scheme will afford to the Arab labourer in the field benefits similar to those afforded to the Jewish settler by the Rural Sick Benefit Fund and the Medical Benefit Society.

40. Another matter of great importance to the sanitation of rural areas is the provision of latrines in villages. It is a measure designed to encourage habits of cleanliness and has a particular function in relation to the control of hookworm. Expenditure was incurred on this service from 1934 onwards and amounts ranging from £P.3,500 to £P.5,500 were spent annually by Government for this purpose from that year until 1936, up to which time 25,000 latrines had been constructed. During 1935, when ample funds were forthcoming, no less than 11,837 latrines were installed in villages by the staff of the department against the repayment of a nominal sum by the villagers. Since 1936, however, little or no money has been made available for the service. It is now proposed that a programme providing for the annual installation of 9,000 latrines, at a cost of £P.5,000 a year, shall be laid down; there will be a small revenue of about £P.300 a year to be realized from villagers in the form of recoveries.

41. A further scheme for the promotion of village welfare, which has been inaugurated as an experiment in the Lydda district and which appears to deserve extension, can perhaps best be described as town planning applied on a small scale to villages. As the Senior Medical Officer who inaugurated the scheme remarked "While I feel that road-making will be of the greatest value in opening up the country, the inevitable corollary presents itself 'Opening up the country to what?' To the sight of miserable hovels in which the wretched rural inhabitants have to live and eke out a miserable existence of ill health due to preventable causes".

42. The scheme provides for the opening up of villages by the construction of at least one main street which can be kept reasonably clean, for the clearance of open spaces for recreation, for the planting of trees, for assistance to villagers to build hygienic houses outside the congested area of the village, for improved water supplies and, in some cases, for the establishment of an infant welfare centre. The experimental scheme

at Yazur was well on its way to success when the disturbances intervened and put an end to it; the village had, however, already become the envy of the countryside. It is proposed to repeat such schemes, choosing villages in different parts of the country, so as to spread the underlying idea as widely as possible. The average cost will be about £P.500 a village, but, as the villagers are required to provide all labour at half the normal price, the value of the work accomplished may be set at double this figure. It is suggested that four villages a year be dealt with, resulting in an expenditure of £P.2,000 a year. There will be no charge for maintenance.

E. MISCELLANEOUS PROPOSALS.

1. BIOCHEMICAL LABORATORY AT HAIFA.

43. Under this head there are three deficiencies in the equipment of the department which require to be made good. When the new Government hospital at Haifa was constructed in 1938, specially planned accommodation for a biochemical and Branch Analyst's laboratory was included in the building. Financial stringency has, however, prevented the staffing and equipment of this unit. A biochemical laboratory is an essential part of the machinery of diagnosis and treatment in any large modern hospital and it is important that one should be provided at Haifa at the earliest possible date. The capital cost of the necessary technical equipment is only £P.700; the recurring cost of staffing the laboratory will be £P.350.

2. PHYSIOTHERAPY, MASSAGE AND X-RAY THERAPY.

44. No provision as yet exists in any Government hospital for certain well established types of specialised treatment such as physiotherapy, massage and X-ray therapy. Physiotherapy and massage are adjuncts to other forms of treatment and provision for them is a real need in view of the large number of accident cases dealt with in the Government institutions. It is proposed to provide for these in Haifa and Jerusalem at a cost for equipment of £P.400, with recurring charges of about £P.200 per annum, representing the pay of two graduate nurses. Deep X-ray therapy has a special field of its own in the treatment of cancer; it is sometimes the only way in which deep-seated growths can be reached and hence the only hope for the sufferer. A section of the new hospital in Haifa was specially constructed for this purpose and it is proposed that the necessary equipment, costing £P.2,000, and staff, costing about £P.300 per annum, should now be provided. One further need is for the replacement of the ordinary X-ray plant in Jerusalem. This plant was presented as a gift to Government thirteen years ago; it has served a most valuable purpose but is no longer efficient, up to date or safe for the staff who use it. Its replacement, at a cost of £P.2,250, has become a matter of urgency.

3. HOSPITAL IMPROVEMENTS.

45. Finally, there is room for great improvement in the general conditions in which much of the work of the department is carried on. There are hospitals and clinics without hot water supply or electric light, and hospital kitchens with highly inadequate cooking ranges and heaters. The buildings in which out-patient sections are housed are often cramped and unsuitable. The larger disinfecting stations are efficient, but whereas they should be reasonably comfortable and well furnished, they are actually forbidding in aspect and equipped like prisons. The Director of Medical Services also pointed out that most health officers do their work in inadequate rented buildings, but this complaint is common to practically every department of Government. There is no doubt, however, that a sum of £P.2,500 is badly needed for the provision of hot water supplies, electric light, kitchen ranges and heaters and minor mechanical laundering plant in hospitals, of £P.2,000 for the improvement of out-patient buildings and special clinics and of £P.2,500 for the improvement of disinfecting stations. It is further proposed that a grant of £P.4,500 should be made for the provision of similar amenities in Jewish hospitals and clinics.

4. ADDITIONAL ADMINISTRATIVE STAFF.

46. Provision for the staff required to operate the various services mentioned in this chapter has been included in the recurring charges quoted, but their initiation will entail a certain amount of expansion on the administrative side, both at headquarters and in the districts, the cost of which is not covered in this way. It is estimated that a sum of about £P.2,150 annually will be required for this purpose.

F. SUMMARY.

47. The following table summarizes the cost of the various proposals made in this chapter :—

<i>Service</i>	<i>Capital cost</i>	<i>Initial recurring cost</i>	<i>Recurring cost at end of ten years' period</i>
	£P.	£P.	£P.
A. NEW PROJECTS.			
1. Tuberculosis Service	103,200	15,066	19,500
2. Mental Hospital	92,000	14,000	17,000
3. (a) Extension of accommodation at Government Hospital, Haifa	9,500	3,000	4,000
(b) Grant to Jewish Community Hospital, Haifa	12,500	Nil	Nil
4. Maternity Annexes and Midwives' Training Schools, Jaffa and Nablus	21,500	2,600	3,000
5. Fever and General Hospital in the Plain of Sharon	48,500	4,442	5,500
TOTAL : NEW PROJECTS	287,200	39,108	49,000

<i>Service</i>	<i>Capital cost</i>	<i>Initial recurring cost</i>	<i>Recurring cost at end of ten years' period</i>
	£P.	£P.	£P.
B. EXTENSION OF EXISTING SERVICES.			
1. (a) Infant Welfare Service	3,000	5,500	8,500
(b) Grant to Jewish Infant Welfare Services	Nil	1,820	2,500
2. Ophthalmic Service	500	1,888	2,500
3. Venereal Diseases Service	2,000	1,400	1,750
4. (a) School Medical Service	Nil	2,850	3,500
(b) Grant to Jewish School Medical Service	Nil	2,220	2,750
TOTAL : EXTENSION OF EXISTING SERVICES	5,500	15,678	21,500
C. VILLAGE MEDICAL SERVICES AND UPLIFT.			
1. Subsidised Rural Medical Service	Nil	1,800	1,800
2. Village Latrines	Nil	5,000	Nil
3. Village Improvement Schemes	20,000	Nil	Nil
TOTAL : VILLAGE MEDICAL SERVICES AND UPLIFT	20,000	6,800	1,800
D. MISCELLANEOUS.			
1. Biochemical and Branch Analysts' Laboratory at Haifa	700	350	500
2. Provision for Physiotherapy, Massage, and X-Ray Apparatus	4,650	510	750
3. (a) Improvement of Hospitals, Clinics and Disinfecting Stations	7,000	Nil	Nil
(b) Grant to Jewish Institutions for Improvements	4,500	Nil	Nil
TOTAL : MISCELLANEOUS	16,850	860	1,250
E. ADDITIONAL ADMINISTRATIVE STAFF.	Nil	2,158	3,000
GRAND TOTAL :	329,550	64,604	76,550

48. The additional expenditure to be anticipated during each of the next ten years, if effect is given to the above programme, will be as follows :—

<i>Y e a r</i>	<i>Capital expenditure</i>	<i>Recurring expenditure</i>	<i>Total</i>
	£P.	£P.	£P.
First	188,350	25,000	163,350
Second	127,700	42,000	169,700
Third	7,500	66,000	73,500
Fourth	2,000	68,000	70,000
Fifth	2,000	70,000	72,000
Sixth	44,000	72,000	116,000
Seventh	2,000	74,000	76,000
Eighth	2,000	76,000	78,000
Ninth	2,000	78,000	80,000
Tenth	2,000	80,000	82,000
Total :	329,550	651,000	980,550

49. In concluding this chapter we would mention that we have, for the purposes of the foregoing statements, accepted the estimates of cost presented to us by the Director of Medical Services. We are not, however, satisfied that these cannot in certain cases be reduced. As stated in paragraph 1, Government hospitalization is intended primarily (except in the case of infectious diseases) for the very poor and, having regard to the conditions in which the patients normally live, the estimates of the cost of further hospitalization appear to us to be very high. We may instance the figures of £P.500 a bed for the proposed tuberculosis hospital and of £P.450 a bed for the projected hospital in the Plain of Sharon. There are several excellently conducted missionary hospitals in Palestine but we doubt whether they have cost anything approaching these figures. The matter is a technical one on which we are not qualified to give a final opinion, but we think that the estimates of cost should be carefully scrutinized with a view to possible reduction, having regard to the class of patients for which the hospitals will cater.

CHAPTER VIII.

CO-OPERATION.

A. GENERAL.

The Department of the Registrar of Co-operative Societies appears to have suffered from a lack of conviction on the part of Government that the furtherance of the co-operative movement should form an integral part of its long range policy. As a result, the financial arrangements necessary for the assistance of co-operative societies during the earlier stages of their existence have been inadequate, while the staff of the department has been looked upon as a convenient reservoir upon which to draw in times of stress or emergency. In such circumstances, it is not surprising that the movement as applied to Arab cultivators has not gathered the desired momentum or that the development which has taken place in other directions is not entirely free from undesirable features.

2. The inception of the department was the outcome of a report submitted in 1930 by Mr. C.F. Strickland, I.C.S., who expressed his conviction that the prospects of developing a co-operative movement among the Arab cultivators were favourable provided Government was prepared to accept co-operation as a definite long-term policy.

3. Government accepted the recommendations of Mr. Strickland and in 1933 formed the Department of the Registrar of Co-operative Societies with the following functions :—

- (a) the technical organization of co-operative societies among Arab cultivators;
- (b) the education of Arab cultivators in the principles and meaning of co-operation;
- (c) the guidance of Arab societies up to the point where members would be competent to assume duties in the societies;
- (d) the supervision of the activities of Arab societies including the auditing of their accounts; and
- (e) the supervision of the activities of Jewish societies and the provision of assistance to Jewish co-operators in remedying the defects in their existing societies and in expanding their movement on approved lines.

4. The activities of the department since its establishment may best be described under two main headings, widely separated in scope and technique, viz :—

- (a) activities connected with the fostering of the co-operative movement among Arab cultivators, and
- (b) activities connected with the improvement of the Jewish co-operative movement.

B. ARAB CO-OPERATIVE SOCIETIES.

5. Progress in respect of the encouragement of co-operation among the Arabs has been limited up to the present to the formation of credit and thrift societies in selected Arab villages. Arrangements were made with Barclays Bank to finance these societies during the early stages when they must necessarily require additional funds. This arrangement was made on the recommendation of Mr. Strickland who considered it to be healthier for the movement to borrow from commercial banks than to depend on direct Government assistance.

6. The movement made reasonably satisfactory progress during the period 1933-1937. 121 village credit and thrift societies were formed, embracing a membership of 5,121 cultivators. These societies accumulated own funds to an amount of £P.10,492 and distributed loans, amounting in the aggregate to £P.185,213, to members at low rates of interest. Throughout this period, repayments by members were regular and most of the loans were used for constructive purposes.

7. Unfortunately, the outbreak of the disturbances arrested all progress and a virtual stop was put to the activities of the department which, with a much depleted staff, was forced to confine its efforts to the prevention of the complete disintegration of the Arab societies which had already been formed.

8. The latter part of 1939, when the disturbances had subsided, was a crucial period for the co-operative movement among the Arab agricultural population. The preservation of the structure already built up was a matter of very considerable psychological importance to the future of the movement, but weakness of the financial arrangements coupled with depletion of the staff of the Registrar effectively prevented any constructive action.

9. At this particular stage, moreover, Barclays Bank decided to discontinue the renewal of loans to existing societies until such time as all outstanding loans from all societies had been repaid and to refuse the issue of new loans unless some form of guarantee against ultimate loss was given to them by Government. In making this decision it is understood that Barclays Bank was influenced not so much by the attitude

adopted by Arab societies during the disturbances as by fear that impending political changes might lead to further deterioration of conditions in rural Arab areas. Details of the advances made by Barclays Bank and of their repayments are as follows :—

<i>Year</i>	<i>Total advances made by Barclays Bank £P.</i>	<i>Repayments on account of advances £P.</i>	<i>Accumulation of own funds of societies £P.</i>
1933	3,270	In full	194
1934	13,595	In full	1,034
1935	39,013	In full	3,481
1936	49,629	In full	6,330
1937	59,456	In full	10,492
1938	50,043	5,000	9,634
1939	53,310	9,000	10,223

10. The whole arrangement for the financing of the movement by Barclays Bank was an informal one, being in the nature of a 'gentleman's agreement' made between the first Registrar and the local Directors of the Bank. Subsequently, in 1937, a monopoly for the issue of short-term crop loans in the villages in which societies existed was given to the Bank. No conditions were, however, prescribed to govern the grant of this monopoly nor, indeed, was the fact that it had been granted reduced to writing; it was made effective by the simple process of refusing to recognize any other bank as an 'approved company' in the villages in question for the purposes of the Short Term Crop Loans Ordinance. No contractual undertaking was given by the Bank and the amount of the total advances to be made to Arab societies was never specified. On the other hand, Government assumed no financial liability of any kind in the matter.

11. Except perhaps as a purely temporary expedient, an informal arrangement of this kind could hardly fail to be unsatisfactory both to Government and to the Bank. It was, moreover, obviously doomed to failure if, at any time, the course of events was such as, in the view of the Bank, to diminish its prospects of obtaining full and prompt repayment of its loans. This has now occurred and, if the Bank maintains its refusal to grant further advances, either Government must come to the rescue or the whole movement must collapse for lack of finance.

12. The Registrar has suggested that application should be made to the Colonial Development Fund for a grant of £P.150,000 for the purpose of creating a loan fund for Arab societies. We agree, however, with the view expressed by Mr. Strickland that the finance required by the movement should, if possible, be provided by a commercial institution and not directly by Government. The history of various past agricultural

loans has shown that, whereas cultivators will pay their debts punctually to such an institution, the same is far from true as regards debts due to Government.

13. In an *ad interim* report, made at Government's request, we have recommended that Government should give Barclays Bank a limited guarantee in respect of new loans made in 1940 to societies which have repaid their existing debts in full. This expedient has, however, been proposed purely as a temporary measure, in order to keep the Arab co-operative movement alive while a final solution is being devised. In our opinion, this solution lies either in the formation of a Central Co-operative Bank or in the constitution of a Government Land Bank, such as exists in many dependencies, and in paragraphs 22 to 24 of this Chapter we recommend that a Bank of the latter nature should be inaugurated in Palestine.

C. JEWISH CO-OPERATIVE SOCIETIES.

14. Activities in respect of the Jewish co-operative movement are of a quite different nature from those described above. The Jewish section of the population needs no spur in the matter of the formation of co-operative societies. Assistance has, however, been given by the Registrar in the formulation of rules, in pointing out possible dangers and errors and in ensuring that the audit of accounts is efficient. Jewish societies also require guidance in order to ensure that their activities conform with co-operative principles and that they do not indulge in harmful rivalries amongst themselves. A considerable amount of activity on the part of the Registrar is also necessary in order to liquidate moribund and inactive societies and to bring about the amalgamation of kindred societies with a view to the prevention of overlapping and competition.

15. The Jewish movement has taken full advantage of the services of the department and of the legislation enacted in 1934, as well as of the general improvement in the economic condition of the country since 1933. Their co-operative societies entered upon a stage of intensive development, the number of registered societies increasing from 473 in 1933 to 949 in 1939. Of these, 469 joined one or other of the six audit unions which were formed early in 1934 and all societies showed a considerable improvement in the standard of the audit of their accounts. Nearly all moribund societies were eliminated by liquidation and a certain measure of success was achieved in the matter of amalgamation of kindred societies. At the close of 1939, Jewish societies had a membership of 280,797 persons (many individuals belong to more than one society), a total of £P.3,353,824 in own funds and a working capital of £P.11,963,206. These figures are a sufficient indication of the popularity of the co-operative movement among the Jewish section of the population.

16. The relaxation of control by the department, to which reference has already been made, resulted, however, in a definite deterioration of the standards maintained by the Jewish societies. Audit became less satisfactory, disputes increased and the number of societies which had to be ordered into liquidation rose considerably. The position of Jewish societies at the moment appears to be that many of the improvements brought about during the first four years of the existence of the department are in danger of being lost unless the Registrar is placed in a position to resume control and to keep in close contact with the large number of societies registered since 1933.

17. The Registrar has recommended that, as in the case of Arab societies, application should be made to the Colonial Development Fund for a grant of £P.150,000 to be applied to the financing of the Jewish movement. He suggests that the amount might be devoted to the acquisition of debentures in Jewish agricultural and housing societies. An alternative proposal which he has submitted is for a guarantee of the interest on ten year bonds to be issued by two Jewish central bodies, one comprising agricultural and one housing societies, the bond issue being limited to £P.300,000 and the interest to 5 per cent. Failing acceptance of either of these recommendations, he suggests that the Colonial Development Fund might be asked to bear, for ten years, the cost, estimated at £P.15,000 a year, of auditing the accounts of the Jewish societies. In support of the last mentioned proposal he advances the arguments that the accounts of Arab societies are audited by the department, that an annual grant would enable the Jewish societies to organize a Central Union and a net of audit unions to undertake a full co-operative audit of the societies, that the Registrar would thereby be able to exercise a closer control and, finally, that the Jewish societies deserve support as they contribute largely to the welfare and prosperity of the Jewish community.

18. We find ourselves unable to support any of these proposals. As regards assistance to housing societies, the amount of such assistance which could be afforded would be relatively small compared with the total capital outlay already financed by societies of this kind, and it is believed that a debenture issue of the type proposed would be readily absorbed by co-operative credit societies, insurance companies, banks and other business institutions, contractors and others connected with the building trade, and private individuals. In these circumstances there would appear to be no particular reason why Government assistance should be afforded when so many other channels for the provision of funds for this type of investment are open. Moreover, the fact that a number of persons band themselves into a society for the purpose of acquiring their own houses does not of itself differentiate such persons from the individual who prefers to make his own arrangements. If

therefore the principle of affording Government assistance to housing co-operatives were conceded, it would be difficult to resist applications from individuals requiring money for precisely the same purpose and financial assistance to municipal housing schemes could not logically be refused. The question of the provision of finance for agricultural societies is dealt with in paragraph 22 below.

19. Nor does the case for the alternative proposal, which envisages the provision of funds to meet the cost of the audit of Jewish societies, appear to us to be a strong one. It is true that the accounts of the Arab societies are audited free of charge by the department but it is equally true that similar assistance would be accorded to Jewish societies at the same stage of development and that both branches would be expected to make provision for the proper audit of their accounts as soon as the movement had gathered sufficient impetus to allow of the withdrawal of this particular form of Government support. The structure of the Jewish co-operative organization (which extends to omnibus, taxicab, goods transport, housing, citrus and many other forms of co-operation) is so essentially different from the primitive Arab structure that no question of discrimination can arise.

D. GENERAL PRINCIPLES FOR FINANCING CO-OPERATIVE SOCIETIES.

20. In our examination of the co-operative movement in Palestine we have endeavoured to view the position as a whole, without particular reference to sectional interests or developments. So far as the Arab section of the population is concerned, it so happens that the movement is in its infancy and that development into a healthy maturity will require special care and attention. Co-operation among the Jewish section on the other hand is a vigorous growth, which may require training and possibly pruning but does not need stimulation. Differences in stages of development, however, do not affect principles. In our opinion, if Government assistance is to be afforded, such assistance should be in conformity with clearly defined principles and should be applied without regard to sectional interests.

21. There appears to us to be no case for the provision of financial assistance by Government to co-operative societies other than those directly connected with agricultural production. Nor do we think that there should be any discrimination as between an individual cultivator and a combination of cultivators. It is true that an agricultural co-operative society may be in a better position than an individual to offer security for a loan and that to this extent the combination of individuals will profit from a pooling of resources, but if an individual is able to provide an equal measure of security he should not be precluded from participation in the benefits of any Government scheme of assistance merely because he is not a member of a co-operative society.

E. PROPOSAL FOR A GOVERNMENT LAND BANK.

22. In our opinion, the only practical and efficient method of attacking the problem is by the establishment of a Land and Agricultural Bank with statutory powers and obligations. The governing Ordinance, which would follow the general structure of similar enactments in other dependencies, should contain provision for loans to agricultural co-operative societies, funds being obtained through the central Government, and interest charges being calculated so as to meet the service of the loan, establishment charges and a small margin for the building up of a reserve. In this manner individual agriculturists or agricultural co-operatives, whether Jewish or Arab, would be treated on the same footing, the governing considerations being the funds available for issue and the adequacy of the security offered: Mr. Strickland's objection to 'direct Government' assistance would be met: and in all probability the present exorbitant interest charges on agricultural loans and the legal maximum rate of interest of 9 per cent. would both be substantially reduced. By the establishment of a Land Bank sponsored by Government adequate control over the issue of loans would be possible, the scope of activities (though limited to agricultural projects) would be capable of very considerable expansion and the general loan position as it affects agriculturists would be greatly improved.

23. As regards the Arab movement, we appreciate, of course, that these primitive societies may not be in a position to provide the type of security normally required under Land Bank legislation. But we see no reason why special provision for advances to such agricultural societies should not be made in the governing Ordinance in order to enable the machinery of the Land Bank to be utilized for the issue and management of loans of this nature, the Registrar continuing to exercise a general control over the affairs of the societies. If our recommendation, referred to in paragraph 13 of this chapter, for a temporary guarantee of advances made to Arab societies by Barclays Bank is accepted, the Land Bank would, on its formation, take over these guaranteed loans and also the future financing of the movement.

24. To elaborate the project for a Land Bank in all its details would be beyond the scope of our terms of reference but we consider that the proposal is one which should receive careful consideration by Government, since we believe that such a Bank would form a most important contribution towards the agricultural development of Palestine.

F. REORGANIZATION OF DEPARTMENTAL STAFF.

25. Finally, the Registrar has represented that the present staff of his department is quite inadequate to deal with the work which now devolves upon it and with the additional work which will fall to its lot

if the Arab movement is to be properly fostered and controlled. He recommends that the present post of Jewish Inspector should be transformed into one of Jewish Assistant Registrar, that a second Arab Inspector should be appointed and that the number of Arab Field Organizers should be increased from five to ten. Including additional clerical establishment and additional provision for travelling, this reorganization would entail additional expenditure of about £P.3,500 per annum. We are not in a position to give an authoritative opinion on the exact classification or extent of the staff required by the Registrar to conduct the affairs of his department with efficiency. We consider, however, that Government should be prepared to accept co-operation as a definite long-term policy, that the Arab cultivators should be educated and assisted towards this end and that the Jewish societies should be so controlled as to ensure that the law is obeyed. To achieve these objectives it is clear that sustained effort is necessary and that the Registrar must be provided with a staff adequate to fulfil the functions of the department. *Prima facie*, provided that finance is to be made available for the expansion of the Arab movement, the additional staff proposed above does not appear to us to be excessive.

CHAPTER IX.

LABOUR.

A. GENERAL.

A commentator, speaking recently in a broadcast from the studios of the British Broadcasting Corporation, emphasized the fact that the new colonial policy would provide the opportunity for creating Departments of Labour in those dependencies where they do not already exist. We have examined the question of the need for such a department in Palestine and, in the result, consider that not only is the need a real one, but that the creation of a department of this kind is essential for the general betterment of the people of this country.

2. It is not too much to say that Government has, at present, no policy towards labour as such. A certain degree of protection is afforded to labour, in an archaic form, by some of the provisions of the Ottoman Code and various Ordinances have been promulgated for the control of trades and industries which, although designed primarily to protect consumers, to prevent nuisances and to aid the police in the discharge of their duties, have operated also to the benefit of the workers. But there is no continuous background of policy against which the social problems of the country can be viewed, discussed and treated.

3. Although there exists (it has not met for some years) a Standing Committee on Labour Legislation, it neither did nor could do the work which would fall to the lot of a Labour Department. It rarely took evidence from employers and workmen and, in fact, did little more than recommend the preparation of laws based on British statutes. The action taken by Government upon its recommendations was, in turn, extremely limited.

B. PRESENT POSITION REGARDING LABOUR LEGISLATION.

4. Not only is the law relating to labour in itself inadequate but there is no organization charged with its administration as a whole. It forms merely an incidental duty of several different departments. The Health Department, the Police Department, the Public Works Department and the District Administration are all charged with statutory responsibilities for the hygiene or safety of establishments or installations of varying kinds, but none of them have any staff specially appointed for the purpose nor is there any central co-ordinating authority. The Director of Medical Services, on whom the bulk of these responsibilities rests, applied some years ago for the appointment to his department of a qualified Factory Inspector but this recommendation, though approved, has not yet been acted on.

5. The Trades and Industries Ordinance, which is the main Ordinance regulating the condition of factories and allied establishments in Palestine, is, as already mentioned, primarily a public health measure and, although the hygienic conditions under which large sections of workers carry out their daily employments are safeguarded by the operation of the Ordinance, such protection is largely incidental to the main purpose of the law, namely, the safeguarding of consumers' interests. The Ordinance is not designed to afford and cannot afford the protection of working conditions contemplated in a Factories Act or a Shops and Offices Act.

C. DEFECTS OF EXISTING LEGISLATION.

6. A few of the defects of the existing legislation may be briefly stated. There are numerous cases of industries which do not come within the scope of the Ordinance at all, although the need of regulation of hygienic conditions is apparent. For example, overcrowding and insanitary conditions exist in many tailoring establishments where numbers of people are employed but these do not fall within the scope of the law since they do not use power-driven machinery. There is no Inspection of Machinery Act providing for the installation of safety devices on machinery or for the regular inspection of mechanical appliances. There is similarly no provision for the inspection of lifts or scaffolding. The provision for investigation into the causes of accidents is also wholly inadequate apart from Coroners' inquiries where the accident has proved fatal; otherwise such provision is limited to investigations in cases of accidents caused by mishaps to steam boilers, of accidents in mines, and of accidents in establishments coming within the scope of the Workmen's Compensation Ordinance. The latter Ordinance, however, merely provides that a book be kept in each such establishment in which particulars of accidents *may* be entered by the injured workmen or on their behalf. Close expert inquiry into the causes of all serious industrial accidents is an essential preliminary towards the provision of adequate safeguards against such accidents.

7. Although a Workmen's Compensation Ordinance is in force, and although the existence of such an Ordinance has undoubtedly an important effect in making employers pay attention to the safety of their employees, this is not enough and the Ordinance itself is defective in many respects. It is applicable to a specified list of hazardous industries only and not to dangerous occupations as such. Thus a clerk in a textile factory is entitled to compensation if injured but a driver employed by a grocer's shop is not covered by the law. In industry, only those manufacturing operations where power-driven machinery is employed are covered; serious injuries may be inflicted by hand tools in other establishments without any liability to pay compensation being incurred. Only a very limited protection is afforded to casual workers.

No provision is made for payment of compensation in respect of occupational diseases and, although insurance against accidents is of great importance, no encouragement is afforded to employers to take out cover. There is, moreover, little doubt that the interpretation of the Ordinance by the Civil Courts suffers by reason of the lack of the benefit of expert evidence such as would be provided by Factory Inspectors.

8. The general provisions of the law relating to the hire of personal services are similarly inadequate. There is nothing in the nature of a Truck Act, although it is a not uncommon practice of certain employers to pay their labour in part in coupons encashable only at shops in which the employers have an interest, a system which obviously opens the way to grave abuse. There is no Wages Protection Act, such as finds a place on the statute books of many countries; such an Act usually ensures the attachment of money in the hands of employers for the payment of wages in arrears and prescribes the intervals at which wages must be paid, thus securing regularity in payment. Evidence is not lacking of a need for this provision in Palestine. In 1939, no less than twenty-four strikes were caused by irregular payment of wages, while in numerous other instances disputes due to the same cause arose although they did not end in actual strikes. The somewhat vague provisions of the Ottoman Law which relate to the hire of personal services fall considerably short of the minimum requirements in a modern industrial state while the relatively weak position of the employee *vis-à-vis* his employer in initiating legal action renders them largely inoperative in actual practice.

9. No legislation exists limiting the hours or times of employment of adult males, although partial protection is afforded in some localities under municipal by-laws. This is not, however, a matter which should be left to municipalities to define. The Women and Children (Industrial Employment) Ordinance regulates the permissibility of the employment and the hours of labour of women and children in industrial undertakings only, all commercial employment being excluded from the scope of the law. An amending Bill, drafted in 1935, contemplated the extension of the Ordinance to non-industrial employment but the Bill has not yet been enacted. There is neither encouragement of apprenticeship nor protection of apprentices in Palestine.

10. So far we have dealt only with the question of the protection of the individual labourer, since this forms the subject of the most elementary labour legislation. To prepare and subsequently to administer such legislation would be an important but by no means the most important function of a Department of Labour. Its primary duty would be to advise on labour problems in the widest sense, such advice being available not only to Government but to the labourer and employer also.

D. TRADE UNION MOVEMENT.

11. The civil law of Palestine permits the formation of trade unions and recognizes the right to strike (subject to certain limitations) and the right of 'peaceful picketing' during the course of an industrial dispute. But there is no specific law, such as exists in most countries, defining not only the rights, but also the duties, of such unions. There has lately been clear evidence of the need for such a law in Palestine. The Jewish trade union movement, which occupies a dominant position in many branches of Jewish industrial activity, contains features which create problems of special difficulty. The majority of industrial unions are affiliated to the General Federation of Jewish Labour, which is a pioneering and political movement as well as an organization for the protection of wage earners and which is apt to allow the former aspect of its work to dominate the latter. In such circumstances it is not surprising to find cleavages of opinion between the union movement under its control on the one hand and private employers of Jewish labour on the other. In certain recent labour disputes it has, for example, been alleged by private contractors that labour co-operatives formed under the aegis of the General Federation of Jewish Labour cut prices on contract works by imposing on their members longer hours and lower rates of remuneration than private contractors are permitted by their unions to impose; urban private employers have also complained that workshops under the direct control of the Federation can undersell the private employer by reason of the fact that the Federation does not insist, in the case of its own workshops, on the observance of the minimum union requirements. The existence of these grave differences of opinion between employers and organized labour points clearly to the need of the independent and impartial liaison between employer and union which would be provided by a Government Labour Office.

E. LABOUR PROBLEMS IN PALESTINE.

1. PROBLEMS OF JEWISH LABOUR.

12. The whole question of labour protection in Palestine is permeated with politics, especially among the Jews. One of the most fruitful sources of industrial disputes is the existence of competing labour organizations affiliated to political parties. This results in friction in the field of labour being transported into the field of politics and in the issues being there fought out with demoralizing and often unfortunate effects. The heat of political feeling engendered is often far greater than the actual issue, viewed solely as a labour problem, warrants. There is urgent need for the establishment of joint labour offices with a view to regularizing conditions of work and avoiding friction between the competing unions; owing to lack of compulsion and the strength of

political influences, this is a development beyond the power of any Jewish public body to achieve. But a Government Labour Department might well succeed in bringing pressure on the unions by encouraging such joint offices and by withholding certain services from the obstinate unions.

2. PROBLEMS OF ARAB LABOUR.

13. Turning to the Arab side, attempts to form trade unions among Arab wage earners in Palestine have met with little success. In the absence of the protection of any system of group bargaining, the individual Arab can be severely victimized and the fostering of trade unionism on proper constitutional lines among Arab wage earners should be regarded as an important social welfare activity and would be one of the functions of a Government Labour Office.

F. ARBITRATION.

14. Arbitration is a comparatively new practice in Palestine and arbitration practices suffer from the same defects as in certain other countries. The parties involved in the dispute pitch their demands at a maximum in order to get the best of any compromise reached and as the first desire of the intervening body, usually the Jewish Agency, is to secure peace, manoeuvres of this kind are virtually encouraged. In the result there are great differences in the conditions of work even in the same industry, unfair bargaining is common, belief in the use of arbitration is small and there is lack of stability in any agreements reached.

15. While compulsory arbitration would for the present and probably for a long time to come be inadvisable, the organization and unification of arbitration practices could, with great advantage, be undertaken by a Government Labour Office. Public opinion must be educated to regard the arbitrator as a competent and independent judge, free of political or personal influence, and arbitration as a Court and not merely as an opportunity for bargaining. In many countries the machinery of conciliation and arbitration is organized under the direction of the Department of Labour.

G. UNEMPLOYMENT.

16. The serious unemployment situation which has existed in Palestine for some considerable time past has concentrated attention on this social problem. Various measures for the relief of the situation have been introduced, including a planned programme of relief works financed by Government and a highly organized system of unemployment relief administered by the Jewish community. But in the absence of detailed information and statistics there is always danger that the maximum

effect will not be obtained from relief measures of these kinds. The proper co-ordination of relief measures, the study of the causes of unemployment and the assessment of the extent of unemployment and its incidence among various classes of the people are prime functions of a Government Labour Department in countries where such an organization exists.

H. PROPOSAL FOR A GOVERNMENT DEPARTMENT OF LABOUR.

17. We think that enough has been said to show that the present labour legislation of the country is seriously deficient and that there is urgent need for an organization qualified and equipped to deal with labour problems as a whole. But we are far from suggesting either that Government should rush into new legislation with a view to rectifying the deficiencies or that it should attempt to set up, at short notice, a new department to administer it. Labour legislation bristles with difficulties and a full survey by an expert of actual conditions in the field which it will cover is, in our view, an indispensable preliminary to the enactment of any law dealing with any branch of the subject. Conditions in Palestine are in many respects peculiar and it may well be that such examination will show that material departures are necessary from British practice, on which previous Ordinances have largely been based. Expert advice is also required as to the scope of the duties of the new department; until that has been obtained, it would be premature to attempt to lay down the exact staff which will be needed to discharge them.

18. It is possible that it may be found desirable to bring the new organization gradually into being. In the first instance, at least, its mission will be educative rather than compulsory. To lay down a rigid code of rules applicable to every factory and to insist upon the immediate execution of the changes necessary to ensure compliance with it might well result in the closing down of numerous small industries. Any such code will have to be administered at the outset with sympathy and leniency; the task of the initial inspectorate will be to lead industry into the right path rather than to enforce in all its details the provisions of a law.

19. In our view, the first step to be taken is to secure from His Majesty's Government the services of an officer competent to advise upon the various problems to which reference has been made in this chapter and upon many others which he will doubtless encounter in the course of his study. We are, however, fully satisfied that a permanent organization will ultimately be necessary to implement his recommendations and we are of opinion that this fact should be taken into consideration in selecting an officer for the purpose. The officer should, we think,

be one who is likely, if so required, to be prepared to remain in Palestine and to put his own proposals into effect. There would be considerable waste of effort if one officer were appointed for a year or eighteen months to make a survey of the field and thereafter another were selected to carry on the work; the latter would have to spend a considerable period after appointment in re-surveying the situation in order to make himself acquainted with the local problems, whereas, had he been entrusted with the initial study, he would have been in a position to enter fully on his labours without the loss of this period. Moreover, we consider that it will conduce to smoother working if the officer who is selected to make recommendations remains subsequently in Palestine to put them into effect; the contrary arrangement, which involves requiring one officer to implement the proposals of another, has obvious disadvantages, particularly if there is any difference of opinion between them.

20. The choice of an officer must, of course, be left to His Majesty's Government but the one selected should have wide experience and be specially qualified to deal with such problems as wage regulation, a most controversial field since many Palestinian products are subjected to competition from the products of neighbouring countries produced under low wage conditions, and conciliation in industrial disputes. His emoluments should be such that, should he desire to remain in Palestine after his initial period of secondment and should Government desire to retain his services, he would be likely to accept appointment in a grade suitable for the head of a minor Government department.

21. As we have said, pending expert advice the cost of a Department of Labour cannot be accurately foretold. During the initial period, while the selected officer is making his preliminary study, an annual expenditure (including the pay of clerical assistance, the cost of transport and travelling and contingent outlay) of between £P.1,000 and £P.2,000, the exact amount depending on the emoluments of the officer deputed for the purpose, will probably suffice. Should, as a result of his enquiry, an organization come into being competent to carry out the duties which, we foresee, will fall to the lot of a Department of Labour, we do not anticipate that its cost will exceed £P.10,000 a year.

CHAPTER X.

TOWN PLANNING.

A. GENERAL.

We have given considerable attention to the question of town planning which, we are convinced, is destined to play an important part in the economic development of Palestine. As a result of our survey of the subject it appears to us that something is fundamentally wrong with the procedure now in force, particularly where the larger towns are concerned, and that it would be well for Palestine, in this respect, to take a lesson from what has been done in other countries.

2. A large number of very desirable schemes are at present held up on the score of expense and more than one such scheme, enacted some years ago, has been cancelled on the ground that it is unlikely that Government will be in a position, within any reasonable time, to find the funds required to enable it to carry out its share of the project. It is unnecessary for us to dilate on the undesirability of action of this kind. Once a scheme is enacted, the whole status of the area included in it is changed; land is sterilized, old frontages are altered, new frontages are created and land transfers take place on this basis and not on that of pre-existing values. To cancel an enacted scheme is little short of a serious breach of faith with the public.

3. This brings us to the question why Government should, in so many cases, have to incur heavy unproductive expenditure in the interests of schemes, the main object of which is to improve and enrich the areas which they are designed to serve. A further question also arises, why the execution of such schemes should have to be indefinitely postponed on financial grounds when it is clear that the enhancement of values which would result from them would be far greater than the cost of their execution.

4. The answer to both these questions lies, in our view, in the inadequacy of the existing law. It is true that the Town Planning Ordinance permits of the levy of a betterment tax on land benefited by town planning schemes but the relevant section raises so many doubtful points and is so difficult of application that recourse has never been had to it. The general procedure followed has been that Government or the Municipality provides the finance and the private land-owner pockets the proceeds.

5. A striking example of the application of this principle is to be found in connection with the construction of Kingsway, Haifa. Prior to the reclamation of the port area, the land which now fronts Kingsway on the southern side was a semi-slum, facing a railway line and, beyond

that, an open beach. The construction of Kingsway raised the value of this land to some twenty or thirty times its original price but not one farthing of this increment accrued to Government, which had provided the development which gave rise to it. The whole of it was retained by the owners of the land.

6. Nor did the betterment stop here. Other streets, which formerly had no outlet, now found themselves connected with a first-class shopping thoroughfare and land values along them rose accordingly. Indeed, the construction of the port has affected values throughout the town. But the whole of this unearned increment has gone to swell the profits of the private landlord, who contributed nothing to the expenses of the scheme which was the cause of the enhancement.

7. The same problem has arisen elsewhere and has been dealt with in different ways; we are indebted to the Town Planning Adviser for much information as to how the difficulty has been overcome in various countries. As a result of this enquiry, we believe that the arrangement most suitable to Palestine conditions would be that which is in force in the larger towns in India, namely, the constitution of Improvement Trusts.

B. IMPROVEMENT TRUSTS.

8. Perhaps the most notable of the Indian Trusts is the Calcutta Improvement Trust. It is governed by a Board of Trustees which comprises a Chairman appointed by Government, representatives of the Corporation and Chambers of Commerce and a certain number of members nominated by Government to represent important interests such as the railways, the port and the like. Its activities are financed in part from loans and in part from the proceeds of certain special taxes, including the duty on the transfer of property.

9. In the early days of the Trust a comprehensive plan was prepared for the city and this has been the basis of all subsequent operations. The Trust buys areas of land both occupied and vacant, widens existing roads, lays out and constructs roads, bridges, boulevards and parks, and then sells the developed land for building by private persons, usually making a large profit on the transaction. The Trust has constructed miles of wide roads, many through closely built-up areas, and has endowed Calcutta with hundreds of acres of parks and recreation grounds.

10. Before commencing operations on a proposed scheme, the Trust obtains the approval of the Calcutta Corporation. While a scheme is in process of execution, the public streets in the area of the scheme are vested temporarily in the Trust and maintained by the Trust. When the scheme is completed the streets are handed back to the Corporation in their improved form. This means in effect that in many cases the

Trust has taken over from the Corporation a network of narrow lanes with all their sewers, water mains, gas mains, etc., and two or three years later has handed back to the Corporation a fine modern street equipped with improved services and flanked by well laid out building plots or reconstructed buildings.

11. The whole of this development is obtained without cost to Government. The Trust recoups itself by purchasing slum property, at slum property rates, and reselling it as frontages to first-class modern streets, equipped with all conveniences. The Indian Land Acquisition Act provides that the amount to be paid for land acquired for public purposes shall not exceed its market value prior to the publication of the announcement notifying it for acquisition, and in this way the enhancement in value due to development undertaken by the Trust accrues entirely to the Trust. The loan funds of the Trust provide merely circulating capital; the proceeds from the operations provide not only the amount necessary for the payment of amortization and interest charges but also a considerable profit which is devoted to the improvement of the general amenities of the City. Parks, pavements, better streets, public lavatories, and the hundred and one necessities of a huge urban area owe their origin to the activities of the Improvement Trust.

12. We are of opinion that Trusts of this kind could function with success in Palestine and that through their agency many projects, which are now languishing from lack of funds, could be brought to successful conclusion. This is particularly the case in Haifa. It is, for example, proposed to drive a wide avenue through the Haifa suq, which will afford a proper approach to the city from the east. If Government merely acquires the land which will be occupied by this avenue, demolishes the buildings now on it and constructs the road, it will be put to large expense with little or no prospect of any return; if, on the other hand, an Improvement Trust were formed which could acquire a wide swathe through the area at its present value as slum property, construct the throughfare, provide it with the necessary services in the form of water, drainage and electricity, and then resell the frontages, a large profit might be made on the undertaking which would be available for the provision of further amenities elsewhere in Haifa.

13. A scheme of this kind would result in an enhancement of land values not only on the alignment of the road but also throughout its neighbourhood, and a share of this increment should also be secured for the Trust. In this connection, we have been interested in the provisions of the Act passed for the purchase and preservation of Wimbledon Common. This Act provides for the levy of an annual rate of 6d. in the £ on each dwelling house within a quarter of a mile of the common, of 4d. in the £ on each dwelling house within half a mile and of 2d. in the £ on each dwelling house within three quarters of a mile. A levy

on this principle on properties within easy reach of a successfully completed town planning scheme would be fair in incidence, easy to collect and provide funds for further works of the same nature.

14. It would, of course, be impossible for us in a report of this nature to deal in detail with the duties, responsibilities, resources, etc. of Improvement Trusts; the question is highly complicated as is shown by the fact that the Calcutta Improvement Act runs to well over a hundred sections. But we believe that the best hope of successful town planning lies in the adoption of an arrangement of this kind and we recommend that Government should at once take up a closer study of the question. *Prima facie*, three such Trusts would be required in the first instance, for the Jerusalem, Haifa and Jaffa—Tel Aviv areas, respectively, working in close collaboration with the Municipal Corporations and District Town Planning Commissions responsible for the towns concerned.

C. CLEARANCE OF THE WALLS OF JERUSALEM AND JAFFA—TEL AVIV SEA ROAD.

15. Trusts of this nature could provide at no cost to Government many of the urban amenities for which District Commissioners have recommended that application should be made for assistance from the Colonial Development Fund. An important scheme of this kind is that for the clearance of the mean and unsightly buildings which at present mask the northern and western walls of Jerusalem and the reservation of the land occupied by them as open spaces, a scheme which was approved in 1918 but for which funds were never forthcoming. The cost of acquiring the necessary buildings, of demolishing them, of laying out the land and of constructing a wide road parallel to the newly exposed walls would be high; a rough estimate places it at £P.150,000. But were a Trust to acquire also the buildings, mostly small and second-rate shops, on the opposite side of the road, demolish them and re-parcellate and resell the sites, the foundations would have been laid for one of the finest and most interesting shopping streets in the world. The enhancement of land values thereby effected might well be expected to cover the cost of the whole scheme. The provision of a sea road between Tel Aviv and Jaffa, which is recommended by the District Commissioner, is another example of a work which might well be entrusted, on the lines above described, to a Jaffa—Tel Aviv Improvement Trust.

D. PRESERVATION OF THE MOUNT OF OLIVES.

16. As we have indicated, most schemes of urban improvement could be handled in this way. But there is one scheme in respect of which a decision is likely to be required before the necessary preliminaries to the formation of Improvement Trusts can be undertaken, namely, that

for the preservation of the Mount of Olives. The scheme, which was formulated by the late Lord Allenby immediately after the British occupation of Jerusalem, severely restricted building operations in the locality pending the acquisition of the land by Government and its laying out as a public park. Here again, however, money has never been made available for the purpose and the time has come when Government must decide either to proceed with acquisition or to remove the restrictions on building now imposed.

17. A valuation has been made of the cost of acquiring the minimum area of land, some 142 acres, which must be taken over if the main characteristics of the Mount are to be preserved. The valuation amounts to £P.157,000, but about one-third of the area is occupied by religious institutions and it is thought that such institutions may co-operate in preserving the character of their particular plots of land without recourse being had to acquisition. The cost of laying out the area acquired as a public park is estimated at £P.20,000.

18. It is hardly necessary for us to comment on the gravity of the decision to be taken, having regard to the associations of the area in question. Government is faced with the choice between two alternatives. Either it must expend a considerable sum on acquiring so much land as is necessary to preserve the most important features of the Mount from spoliation or it must acquiesce in the utilization, for the purpose of the construction of possibly undesirable and inappropriate buildings, of what is perhaps the most hallowed spot in Christendom.

19. We trust that Government will make every effort to adopt the former course. In the absence of more detailed information, we cannot assess the prospects of an Improvement Trust in Jerusalem but if, as seems to us likely, such a Trust can be established on a profitable basis, it might be possible to regard the cost of the Mount of Olives scheme as an advance to it, interest and amortization charges being paid from the proceeds of other schemes promoted by it for the improvement of the city.

E. JUBILEE PARKS.

20. There is one other matter to which we would refer in connection with town planning activities. In 1935, a proposal made by the Government of Palestine to set aside from the surplus balances then available a sum of £P.100,000 for the provision of public parks in the four large towns was approved by the Secretary of State. In a speech to the Municipal Council of Haifa delivered on the 11th December, 1935, Sir Arthur Wauchope referred to the Municipality's scheme for the construction of public gardens to commemorate the Silver Jubilee of His Majesty King George V, and announced that approval had been received to an

expenditure of from £P.20,000 to £P.25,000 for this purpose in each of the four towns. Owing to the outbreak of the disturbances it was considered impossible to find the amount required in 1936-37 but Sir Arthur recorded a minute on the 5th August, 1936, to the effect that a definite pledge had been given by the High Commissioner in public that the money would be forthcoming and that it would be deplorable if the undertaking were cancelled. Eventually the Secretary of State was informed that it had been decided that the payment of the grants was being postponed until the financial position improved, and there the matter still rests. Having regard to the promise made and to the circumstances in which it was made, the undertaking cannot, in our view, be regarded as other than a definite commitment on the part of Government.

CHAPTER XI.

COMMUNICATIONS.**A. RAILWAYS.**

The General Manager of the Palestine Railways has prepared a somewhat formidable list of deficiencies which require to be made good. For some years past, the allocations made on behalf of the railway have been limited to amounts barely sufficient to cover running expenses and the sums allotted for 'extraordinary' expenditure have been far too small to enable any but strictly essential works to be taken in hand. The amount provided under this head in the current year for the whole of the Palestine Railway is only £P.8,600, of which £P.3,000 is for accounting machines to be purchased in order to reduce the cost of clerical establishment.

2. We have grouped the proposals under general headings and deal with them below.

1. ESTABLISHMENT.

3. In 1935, when a railway strike was threatening, Government sanctioned certain increases in the pay of a number of low-paid daily and monthly wage earners and at the same time gave an implied promise that, in future, such men would get a small increase in pay within their prescribed scales every third year, whereas in the past such increases had been very spasmodic. Effect was given to this undertaking in 1935 and 1936, but in 1937 the necessary provision was excised from the estimates and has not since been re-instated. Although it was announced, when the scheme was sanctioned, that the question of provision would be reviewed annually, it was also stated that "it is hoped to make provision in subsequent years for similar increases" and undoubtedly the men concerned believed that a permanent improvement in their conditions of service had been secured. We consider that, having regard to the nature of the implied undertaking and to the circumstances in which it was given, it should be implemented. The initial cost will be £P.6,500 a year, or about 3 per cent. of the wages of the men affected; this amount will increase annually until a balance is struck by the retirement of men in the higher grades and their substitution by recruits on the lower rates of pay.

2. BUILDINGS.

4. The General Manager has made a special plea for the construction of a new railway headquarters office at Haifa. The present offices lie in a slum quarter between a road and the railway traffic yard, from both of which there is constant noise; they have been repeatedly condemned

by the medical authorities who report that they are noisy, hot and dusty in summer and draughty in winter, that there is little doubt that the conditions under which most of the clerical staff are working are detrimental to their physical and mental health and that it is unreasonable to expect full efficiency from them while they are required to work in such conditions. It is proposed to build the new offices on the top of the new Central Station, which was specially designed and constructed for the purpose, at a cost of £P.17,500.

5. New railway offices, to cost £P.3,000, are also required at Lydda, where the staff is working in old wartime huts which are hot, uncomfortable and most unsatisfactory in every way. Permanent living quarters are needed at Gaza for the Assistant Permanent Way Inspector, who is now required to live in a mud hut fifteen years old, and for the Locomotive Chageman, who at present is provided only with an old and insanitary hut of timber. The cost of affording decent living accommodation for these two officers is estimated at £P.1,800. Two of the existing stations require renewal. At Rehovot, which is now an important station both for passengers and goods, an ancient wooden structure, a relic of the last war, serves as a station, while at Tel Aviv all that is provided is a wooden hut put up temporarily years ago pending the construction of a proper building. The cost of replacing these structures by permanent and suitable station buildings would be £P.3,900 at Rehovot and £P.10,000 at Tel Aviv. £P.2,100 are also required to replace the old corrugated iron locomotive and engineering stores at Lydda by permanent buildings.

6. An important need is that of additional carriage stabling accommodation. The railway has only one comparatively small shed for coaches which are not in use, situated at Haifa. The result is that many coaches, including those which have recently been overhauled and repainted, stand out in the weather, blistering in the sun and otherwise deteriorating rapidly. The provision of more sheds at Haifa, Lydda and possibly elsewhere would preserve the condition and appearance of the carriages and result in a real reduction of maintenance charges. The cost is estimated at £P.16,500.

7. Last, but by no means least, it is a matter of urgency that a new railway store should be constructed in the vicinity of the new mechanical workshops in the Haifa Bay area. This should have been but was not done when the site of the workshops was moved. At present the main store is situated in Haifa, on the site where the workshops were previously located, with the result that over 50 per cent. of the materials transported to and unloaded at the main store have subsequently to be reloaded into wagons and carried four miles to the mechanical workshops, thus involving double handling. Moreover, a number of parts for locomotives, coaching and merchandise vehicles carried in stock at

the main store are manufactured at the mechanical workshops to the order of the Stores Superintendent and are then transported four miles to the store; approximately 80 per cent. of these parts are subsequently requisitioned by the Chief Mechanical Engineer and are then reloaded and transported back four miles to the workshops. The lack of economy inherent in such a system needs no detailed comment. It is proposed that a new store be constructed at the workshops for the storing of all parts, materials and stores to be used in those shops, the present main store being used only for the storing of materials and stores used by the Chief Engineer's branch. The cost of the new store would be £P.21,000, and as the stores staff would be to some extent divided, an additional recurrent charge for establishment of £P.1,700 would be involved. This charge would, however, probably be more than offset by the elimination of uneconomical handling.

8. The total capital cost of the building programme sketched above would be £P.75,800, with maintenance charges of £P.940 per annum rising after five years to £P.1,630 per annum, and with the additional establishment charge of £P.1,700 per annum mentioned in the preceding paragraph.

3. ROLLING STOCK.

9. The most important requisition in connection with rolling stock is for the conversion of a certain number of locomotives from coal to oil burning, at a cost of £P.7,000. We understand that no coal has been received this year and that, in view of the situation in Europe, it is uncertain whether or when any will be available. In these circumstances it is desired to grasp the opportunity afforded by the existence of the oil pipe line and the construction of the refinery at Haifa to convert some at least of the locomotives to oil burning. The matter is urgent and it is probable that representations on the subject will have been made to Government by the General Manager before our report is received.

10. Practically all the coaching stock on the railway is old and far from suitable and the poor first-class accommodation offered is having the effect of driving long distance passengers from the railway either to the road or to the air. It is therefore proposed to obtain four first-class air-conditioned coaches for use on the Palestine—Egypt trains. Certain existing first-class coaches will then be relegated to second class and certain second-class coaches to third; a number of third-class coaches which are unsafe for long distance work will be written off or used on workmen's and local trains. Six new third-class coaches are also required for the Hejaz Railway, the stock for which is both insufficient and unsatisfactory. The initial cost of these proposals is £P.32,400, with a recurring annual charge of £P.1,050 for maintenance after the first two years.

11. In compliance with a recommendation of the Combined Civil and Military Railway Board it is proposed to purchase a further breakdown crane for use on the railway. At present there are three such cranes, but one, of 20-tons capacity, is based on Kantara and is not, therefore, generally available. The other two, of 25-tons capacity, are based respectively on Haifa and Lydda; in the event of either being out of order (as was the case when a train was derailed at Qaqun last year) salvage operations are impossible without long delay as in all major operations the use of two cranes is essential. The new crane will be of 35-tons capacity; it will both facilitate salvage work by reason of its greater capacity and will ensure one crane being always in reserve. Its cost is estimated at £P.12,000.

12. The total cost of the rolling stock required is thus £P.51,400, with maintenance charges of £P.1,050 a year.

4. WATER SUPPLIES.

13. The General Manager recommends that special arrangements should be made for the railway water supply at Haifa and Lydda. At Haifa the supply is at present being obtained from a private contractor at a cost of some £P.1,500 a year and it is suggested that wells should be sunk in the sand dunes near the railway workshops, whence the water would be piped to Haifa station. We consider, however, that this proposal should be closely examined before it is approved. In the first place, there is already heavy pumping taking place in the sand-dune area and, while experts differ as to its effect, there is at least a risk that further exploitation of the supply will increase the salinity of the water pumped to an extent which will render it unsuitable for boilers. In that event the capital to be invested in the wells, estimated at £P.17,000, would be lost. In the second place, Haifa is likely to draw its future supply from the Wadi Fellah near Athlit; if (and so far as we are aware there is no proof to the contrary) the quality of this water is suitable for railway work it will be much cheaper to draw it from the main than to make special arrangements for separate pumping.

14. At Lydda, however, the position is different. There is no present prospect of a public supply and it is estimated that, for a capital expenditure of £P.5,000 and maintenance and operational charges of £P.650 a year, the railway could itself pump the water for which it is now paying about £P.1,400 a year to a private supplier. The investment of £P.5,000 in order to effect a saving in recurrent expenditure of £P.750 a year is clearly a profitable undertaking.

5. ARREARS OF MAINTENANCE.

15. It has been represented to us that the railway has not been able to maintain its track, buildings and equipment at a proper standard;

this deficiency has been very marked during the last two years when the workmen have, for the most part, been on a five-day week. There is no renewals fund for buildings, water supplies, signalling apparatus and the like, and the buildings and water supply plants in particular show serious deterioration for want of proper and regular maintenance; the Hejaz Railway carriage and wagon stock is also badly in need of attention. It is estimated that, in order to bring the maintenance up to standard, a sum of £P.65,300 is required, of which £P.25,300 would be spent in the first year and £P.10,000 in each of the four succeeding years. We understand that a sum of £P.100,000 has been tentatively set aside from the surplus balances of Government to finance arrears of maintenance.

6. HAIFA TRAFFIC YARD.

16. Mr. Jenkin Jones, the expert who visited Palestine in 1935 to advise on railway matters, drew attention to the congestion which then existed in the Haifa traffic yard and advised its extension; since that time the remodelling of the yard and the amalgamation of the standard and narrow gauge engine sheds has become increasingly desirable. The cost of the scheme is estimated at £P.33,000, a large proportion of which sum is required for the purchase of a privately owned property which at present drives the railway at this point into a bottle-neck. A proposal to acquire this property was considered by Government in 1934 but rejected on grounds of expense, an unfortunate decision as its value has now appreciated to double what it was six years ago.

7. RAILWAY WORKSHOPS.

17. The renewals fund provides only for the replacement of existing machines when worn out but this is not sufficient to meet the needs of the shops; unless provision is also made for capital additions, modern methods cannot be introduced and in consequence both efficiency and economy are sacrificed. A sum of £P.10,000, of which £P.9,000 is for the Mechanical Branch and £P.1,000 for the engineering shops, is required in order to modernise the present equipment of the workshops.

8. IMPROVEMENTS AT LYDDA JUNCTION.

18. On grounds of economy, Lydda Station, which is the most important junction in Palestine and which caters for a large traffic both of passengers and of goods, has never been provided with the facilities which its status demands. It is now proposed to make good some at least of these deficiencies. The island platform should be roofed, at a cost of £P.2,000. At present passengers arriving from Egypt or waiting for trains from Haifa have no protection from the sun in summer or from the rain in winter. Foundations for the necessary pillars were constructed when the station was built but money has never been forthcoming to provide the roof. Interlocking of points and signals should

also be installed; this is a usual safety measure in railway working but, while it exists at some stations, it is absent at Lydda where provision of this device is of greater importance than anywhere else on the line. Interlocking should certainly have been installed when the station was first built; trains arrive at and leave from Lydda in four different directions and there is constant shunting on the main lines and on lines adjacent to and crossing them. The cost of the installation is estimated at £P.6,000. Finally, a subway or footbridge should be provided, at a cost of about £P.600, so that passengers and their luggage, arriving at or leaving Lydda station, will not be compelled, as at present, to cross busy shunting lines on foot. The present arrangement is very dangerous and accidents have already occurred.

19. The total capital cost of the improvements required at Lydda station, as outlined above, is £P.8,600, involving an annual expenditure on maintenance of £P.140.

9. MISCELLANEOUS.

20. Under this head we deal with certain recommendations of the General Manager which cannot be otherwise suitably classified. Fire fighting and protection measures, estimated to cost £P.2,000, are urgently required both at Lydda and at Tel Aviv. Apart from the buildings at Lydda, large numbers of goods wagons stand at this junction and there are at present no adequate arrangements for dealing with possible fires. At Tel Aviv there is a large goods shed and a number of wagons are always in process of loading and unloading; more important still, a large oil traffic for the storage installations of the oil companies is dealt with at this station.

21. The whole line is unfenced but, unsatisfactory though this may be, it is not suggested that it should be fenced throughout or even at the less important stations. There are, however, four places, Tel Aviv, Gaza, Lydda and Jerusalem, where the line runs through populous areas and the absence of fencing constitutes a real danger to the public. The cost of fencing these portions of the line is estimated at £P.9,000.

22. The third 'miscellaneous' need is for the provision of a motor ambulance for the Haifa workshops, at a cost of £P.350. The workshops are at a considerable distance, some seven miles, from the nearest hospital; 800 men are employed in the shops and the danger of accidents, possibly serious, is always present. The provision of an ambulance is thus merely an elementary precaution.

23. The total capital cost of these miscellaneous measures is £P.11,350, while the recurring cost of their maintenance is estimated at £P.135.

10. TOWN PLANNING.

24. The General Manager has put forward proposals, estimated to cost £P.59,850, for the diversion of the railway line to the east and west at Haifa in order to facilitate town planning schemes in these areas. We have dealt with this question in paragraph 12 of Chapter X and see no reason why the diversion should cause any expense to Government. If an Improvement Trust is constituted, as we have suggested, the sale proceeds of the land at present occupied by the railway should, after its development, more than repay the cost of any diversions necessary.

11. SUMMARY.

25. The total cost of the schemes described in this section is as follows :—

	<i>Capital expenditure</i>	<i>Initial cost of maintenance</i>	<i>Residual recurrent expenditure</i>
	£P.	£P.	£P.
Establishment	—	6,500	26,000
Buildings	75,800	2,640	3,330
Rolling stock	51,400	1,050	1,050
Water supplies	5,000	—750	—750
Arrears of maintenance	65,300	—	—
Haifa traffic yard	33,000	—	—
Railway workshops	10,000	—	—
Lydda Junction	8,600	140	140
Miscellaneous	11,350	135	135
Total	260,450	9,715	29,905

B. HAIFA HARBOUR.

26. Haifa harbour has been formed by constructing a breakwater across a natural bay, thus creating a large basin behind it, with an entrance from the sea at its eastward end. The eastern portion of the harbour thus formed has already been fully developed; quays, a cargo jetty, transit sheds and all the equipment of a modern port have been provided. The spoil dredged from the basin was pumped over the quay wall and utilized to raise the area behind it; the sheds, roads, railways, etc., appurtenant to the harbour are all situated on this reclaimed land.

27. The construction of the harbour has had a further important effect on the development of Haifa. The spoil dredged from the basin has sufficed to reclaim not only the area required for port activities but a considerable area landwards of it also. On the completion of the reclamation this latter area was parcellated, providing a zone for warehouses and stores, a central square in which is situated the new passenger

railway station and the site for the General Post Office, and a thirty metre wide thoroughfare, known as Kingsway, which constitutes a shopping street inferior to none in the Near East. The southern side of Kingsway, along which fine buildings have now sprung up, was formerly a slum area facing on a railway line which separated it from the original beach.

28. The development has not only improved immeasurably the amenities of Haifa but is yielding a considerable sum in revenue to Government. Although part of the reclaimed land still remains to be leased and a considerable portion of it is occupied by Government buildings, the rent-roll of the remainder, which is mostly let on long-term leases, amounts to no less than £P.35,000.

29. In September, 1935, Messrs. Rendel, Palmer and Tritton, Consulting Engineers, submitted a plan for the full development of Haifa harbour which included, *inter alia*, an extension of the quay wall westwards to the full length of the basin. The position here is similar to that which obtained at the eastern end before development there was undertaken. Here also there is a natural beach with slum property behind it. The Consulting Engineers' plan envisaged the extension of the quay wall so as to provide six additional berths for large sea-going vessels. The spoil dredged from the harbour was to be deposited behind this wall, three transit units were to be erected on the area thus reclaimed and the remainder of the spoil was to go to raise the low-lying area behind, transforming the present slum into a valuable property.

30. This scheme was framed at a time when immigration was at its maximum and when a rapid expansion of the citrus export trade was anticipated. Conditions have now changed and with the additional accommodation provided by the recently completed cargo jetty it is unlikely that the full development planned in 1935 will be required for some time to come. In the meantime the needs of the port could be met by the provision of one more berth and one more transit unit. A scheme with this end in view has been prepared; it deals solely with the needs of the harbour. The scheme provides for the quay wall being built to its full length but only up to sea level except where the new berth will be situated; the construction of this wall is essential if any development at all is to be undertaken, as it is required to contain the spoil which must be dredged from the basin in order to afford flotation for the ships. A single transit shed would then be erected behind the new berth. The cost of the works is estimated at £P.609,000.

31. We consider, for reasons which we shall give, that the extension should be carried out, but we are of opinion that to proceed in the manner above described would be highly uneconomical, as Government would thereby lose the possibility of recouping itself for much of its expendi-

ture by reclaiming and leasing the area lying both within and outside the port area behind the extension. An expenditure of an additional £P.50,000 would enable the quay wall to be built to its full height throughout its length and the area in the rear reclaimed. In this way new land could be produced, the value of which may well be of the order of £P.300,000 or more.

32. The extra space thus secured for shipping will be of considerable value to the port. Although only one transit shed will be provided, ships carrying rough cargo, such as metal or timber, which at present moor against the breakwater and discharge into lighters (paying only half wharfage dues) will be able to discharge direct on to the quay, with great increase of convenience and an addition of £P.5,000 a year to harbour revenues.

33. The extension will, moreover, free the port of any apprehension as to its ability to deal with increased traffic. It is quite impossible, in present circumstances, to foresee the trend of imports and exports over a long period of years, and, should there be a sudden increase, the port authorities might be seriously embarrassed as the extension could not be constructed in less than three years. Were, however, the extension in being, the necessary additional facilities in the shape of transit sheds and the like could be furnished in a year or less.

34. The project for the development of the western end of the harbour is closely linked with what is known as the El Atika Town Planning Scheme, which relates to the area lying immediately landwards behind the proposed quay extension. As already mentioned, this area comprises a large block of slum property, through the centre of which the railway runs, and this although it lies on the direct alignment of an extension of Kingsway, the main arterial thoroughfare of Haifa. The El Atika scheme envisages the removal of this railway on to the land to be reclaimed behind the proposed quay extension and the development for commercial purposes of the present slum, but no progress with it can be made until the extension is built. Government has always recognized that this development must come and has this year included in its estimates a sum of £P.150,000 for the purchase of such privately owned land within the harbour area as must be acquired to permit of the quay extension being constructed and of such land outside the harbour area as is necessary for the proposed realignment of the railway. This expenditure is essential in order to prevent the land in question from being utilized for building purposes but, until the extension is complete, the land cannot be put to beneficial use.

35. In these circumstances, we consider that the balance of advantage lies in carrying out the quay extension at an early date. An immediate improvement of the harbour facilities will thus be effected and the port

placed in a position to deal expeditiously with any increase of traffic which may take place. It will further render possible the reclamation of a large and valuable area of land, the removal of the railway line on to this area and the economic development for commercial purposes of the slum property through which the railway now runs. If this development scheme is carried out on the lines which we have suggested in Chapter X, we believe that the project as a whole is one which will redound to the benefit of Government, of the Port, and of the Municipality alike.

C. POSTS AND TELEGRAPHS.

36. The proposals for development in his department put before us by the Postmaster General fall into three categories, namely, the extension of rural postal and telegraph facilities, the construction of two badly needed post office buildings and the modernisation of the trunk telephone system.

1. EXTENSION OF RURAL FACILITIES.

37. The present arrangements for the rural delivery of letters are undoubtedly far from adequate. There are upwards of a thousand towns, villages and settlements in Palestine but at only between sixty or seventy of them are any postal facilities available. The inhabitants of the remainder have to come in to the nearest postal centre, often a journey of many miles, to fetch or post their letters and, as there is no means of informing them whether or not letters are awaiting them, a large proportion of those addressed to rural areas are never delivered at all. After being kept for a month or so at the postal centre they are returned to the senders as undeliverable.

38. For some years, a small provision was made in the estimates to enable a weekly delivery of letters to be made to certain villages within reasonable reach of postal centres. The sum of £P.1,000 a year was allowed for this service, but it was excised from the budget in 1939-40 on grounds of economy and has not been reinstated. The Postmaster General urges that this grant be restored and that a further sum of £P.1,500 a year be allocated for the extension of rural delivery.

39. The demand appears to us to be a reasonable one. We have discussed how the best results can be obtained from the expenditure and it seems to us that the possibility of introducing a system which is in operation in India might well be further explored. In large numbers of villages in that country the village schoolmaster acts as a postal agent; he is granted a small fee in return for which he sells stamps and postal orders, does minor postal business and arranges for the carriage of letters to and from the nearest centre at regular intervals. Being literate, he usually makes a little extra by writing, on behalf of illiterate villagers, the letters

with which he deals. Each such sub-agency serves a small circle of villages and in this way facilities can be afforded to considerable areas at very small expense.

40. It has further been suggested that, as a corollary, telephonic communication should be extended to certain of the larger villages. An example of such a village which was quoted to us was Faluja, in the Gaza sub-district. This is a flourishing little township, with a thoroughly sophisticated population of about 4,000 persons, administered by a Local Council and the centre of an important grain trade. But any inhabitant of Faluja who wishes to get into rapid communication with the outside world by telegraph or telephone is constrained to travel some ten miles by road to the nearest office. It is proposed gradually to extend telephone facilities to centres such as Faluja, using this means for the telephonic communication of telegrams also. Apart from the benefit to the villages, the facilities thus provided would be of great value to the Administration. It is not anticipated that the services would be immediately remunerative but they would undoubtedly become so in course of time. It is estimated that an expenditure of £P.5,000 a year over a ten years' period would go far to provide the rural districts with reasonable telephonic and telegraphic services.

2. BUILDINGS.

41. Coming now to the provision of buildings, the only two new offices urgently required are at Tel Aviv and Haifa. The history of the Tel Aviv Post Office has been a chequered one. It was originally designed to cost £P.80,000, and was to house both the public counter, sorting office and the like, and also the automatic telephone exchange. There was much delay in connection with the acquisition of a site with the result that the automatic apparatus was ready before the building had been built to take it; a portion of the eventual structure was therefore rushed up, the second storey of this portion being finished to the extent necessary to house the apparatus, while the ground floor was left for subsequent completion. At this stage it was decided that money was not available for the remainder of the building and work on it was discontinued, much expenditure of an uneconomic nature being incurred on the temporary walling up of the open and exposed side of the structure and the payment of architect's fees on uncompleted work. Some £P.30,000 have, up to date, been spent on the building.

42. Its completion is a matter of urgent public interest as the present facilities in Tel Aviv are quite inadequate for a town of its size. But, since the original plans were drawn some five years ago, a further factor has obtruded itself. At present all trunk telephone work is carried on by the Jaffa exchange; if a Tel Aviv subscriber requires a trunk call, the demand has to be put through to Jaffa where the necessary connection

is arranged. There are three objections to this system. In the first place, it results in delays. In the second place, in times of trouble, the Post Office is faced with the embarrassment and difficulty of transporting daily female Jewish operators from Tel Aviv to Jaffa and back. In the third place, the useful life of the manual trunk exchange at Jaffa, which has been in operation for some fifteen years, is limited and it would be uneconomical to incur the expenditure necessary to adapt it to modern conditions when it is abundantly clear that, in course of time, a trunk exchange must be provided in Tel Aviv itself. The obvious alternative is to instal a new modern trunk exchange in the Tel Aviv office. This was not contemplated in the original plan, but space on the site is available; it may be expected to raise the cost of completing the building from about £P.50,000 to about £P.70,000. The amount is large but it is necessary, in designing a building of this kind which should have a life of from a quarter to half a century, to take account of such reasonable development as can be foreseen over such a period. It would be short-sighted to build merely for to-day's requirements and to risk finding that, a few years hence, the structure had already outlived its period of utility.

43. Against this cost must be set the sum of £P.1,850 which is being paid in rent for the building in which the Tel Aviv Post Office is at present housed and a further rent of £P.1,000, which is the least for which accommodation for a new trunk exchange could be obtained. We are definitely of the opinion that to hire accommodation for purposes such as this on the short lease system operating in Palestine is uneconomical in the extreme. Once complicated apparatus is installed, the cost of removal is great, and Government virtually places itself at the mercy of the landlord every time the lease expires.

44. The second post office building urgently required is a new General Post Office for Haifa. A site for this office has been reserved on the reclaimed harbour estate and a definite promise was made, when sites on the estate were being auctioned, that a post office would be erected there. In particular, this fact was held out as an inducement to Barclays' Bank to move on to the estate. Many charges of lack of good faith have been preferred against Government for its failure to redeem its promise.

45. From every point of view it is desirable that this office should be constructed as soon as possible. At present, the Post Office is situated in a hired building, erected at a time when the main railway line passed between it and the sea, and what was formerly the back of the building now faces on Kingsway. The building is neither substantial nor convenient and the cost of leasing it is steadily increasing. In 1926 the rental was £P.600, after enlargement in 1929 it was increased to £P.800 and to-day it has risen, although no further improvements have been made, to £P.1,850. The present lease expires at the end of 1943 and

a further enhancement of rent may then be anticipated. Moreover, the premises are no longer adequate and additional accommodation has had to be leased in an adjoining building at an annual rental of £P.460, while the departmental garage, for which provision is included in the plans of the buildings to be erected on the estate, costs a further £P.330 in rent. It is obvious that it would be economical to spend £P.50,000 on a new and properly equipped building rather than to continue paying £P.2,640 a year for inadequate and unsuitable accommodation, with every prospect of an enhancement each time a lease expires.

3. TRUNK TELEPHONE SYSTEM.

46. The third development required is the adaptation of the trunk telephone system of the country for demand working, whereby a subscriber in one town can obtain practically direct connection with a subscriber in another. At present there are apt to be long delays in obtaining trunk connections and not only is considerable revenue lost on cancelled calls but subscribers do not make use of the trunks to the extent which would be the case if immediate connection could be ensured.

47. The cost of the terminal apparatus necessary for the introduction of demand working at Jerusalem, Haifa and Tel Aviv is estimated at £P.7,000; the system could be introduced between Jerusalem and Haifa when the Haifa automatic exchange now being installed is ready and later between these towns and Tel Aviv when the trunk office is moved from Jaffa to the new Tel Aviv Post Office, as proposed in paragraph 42. To obtain full service from the apparatus the project for an underground cable connection between the towns, which is described in paragraphs 48 to 52 below, would first have to be executed but it would be worth while to proceed with the installation of the terminal apparatus in advance of the completion of the cable scheme. Even without the cable, the apparatus would enable demand working to be introduced, using the existing overhead trunk lines, during the slacker hours of the day and the Postmaster General considers that the enhanced revenue likely to be obtained on this account would be sufficient to make the investment a remunerative one.

48. The scheme for the laying of an underground cable between Jerusalem, Jaffa—Tel Aviv and Haifa was approved in principle as long ago as 1936, but its cost led to its postponement and no action regarding it has yet been taken. The present overhead routes are already overloaded and serious delays in working take place in consequence; something must therefore be done to relieve the congestion. The demand for telephones is steadily increasing. No less than 650 new instruments were installed during the first $4\frac{1}{2}$ months of this year and there is still a waiting list of over 300 persons who have applied for connections. Every such new connection means potential further congestion on the trunks.

49. The initial cost of an underground cable connecting the four towns is estimated at £P.200,000; such a cable would provide 37 circuits. The first cost of such a cable is high per circuit but, if and when further expansion takes place, the additional cost per circuit falls rapidly. Thus if, in course of time, the cable had to be duplicated, the two cables together would provide no less than 204 circuits.

50. As already stated, something must be done at an early date; the alternative to the cable scheme is to instal additional overhead routes, as the present routes are fully loaded and cannot carry further wires. We are informed that this would be most uneconomical as a smaller number of channels would be obtained, while the cost would not be appreciably lower. The life of an overhead line is, moreover, considerably less than that of a cable, while, in the case of disturbances, a buried cable offers far less temptation to saboteurs than does an overhead route.

51. If a cable is installed the present overhead route will continue to be utilized for communication with places lying between the terminal towns, thereby greatly increasing the facilities and speed of traffic at those places.

52. It is estimated that the cable would be a paying proposition from the outset and that the profit on its working would suffice to repay the capital cost with interest within a period of fourteen or fifteen years.

D. ROADS.

53. Palestine already possesses an adequate system of roads and, unless exceptional demands be made as, for example, for a new metalled road from Beersheba to Aquaba, no further large extension is anticipated though doubtless short lengths of by-pass and feeder roads will have to be constructed as traffic develops.

54. During the last four years 800 kilometres of all-weather roads have been added to the road system of Palestine, mainly for military purposes. Many of these are now carrying a considerable volume of traffic and are becoming more and more absorbed into the general road system of the country. Owing, however, to their narrow width, which restricts vehicles to one set of wheel tracks, and to the inexpensive type of construction adopted, they will revert rapidly to seasonal tracks unless they are widened and strengthened. It is proposed that such of these roads as are proved by experience to be necessary as commercial highways should be gradually improved and raised to a suitable standard for public traffic.

55. The Director of Public Works proposes that £P.100,000 should be set aside annually for 'extraordinary' road work during the next ten years. This sum would cover the cost of the by-passes and feeder roads

referred to in paragraph 53, the widening and improvement of the more important of the military roads referred to in paragraph 54 and the improvement of certain roads within municipal boundaries for which, from time to time, grants are made under the head 'Public Works Extraordinary'.

56. This sum of £P.100,000 a year compares as follows with the sums allocated for the purpose of road construction in the annual estimates of the five years ending 1937-38, since which date expenditure on roads other than military roads has been drastically curtailed :—

	£P.
1933-34	46,700
1934-35	93,444
1935-36	94,315
1936-37	241,278
1937-38	154,253

The new demand is less than the amount normally spent in the past owing to the fact, already mentioned, that the main road programme of the country is now virtually complete.

E. CIVIL AVIATION.

57. There are two civil aerodromes directly administered by Government in Palestine, at Lydda and Haifa, and one marine airport for seaplanes on Lake Tiberias.

1. LYDDA AERODROME.

58. The recently completed aerodrome at Lydda is a first class modern aerodrome equipped to deal with international air traffic of all kinds; it represents an expenditure of about a quarter of a million pounds. A full-time staff of 92 persons is employed on it; inclusive of families, the number of persons living within the aerodrome precincts is about 150. As work goes on throughout the twenty four hours, and as the aerodrome is at some distance from the nearest centre, it is essential that most of the staff at least should be accommodated on the spot.

59. The Director of Civil Aviation has represented that a sum of £P.7,465 is necessary to complete the buildings and general lay-out of the aerodrome. This sum includes £P.4,600 for a combined canteen and recreation room for the staff, in which building will be incorporated two more bachelor quarters to accommodate personnel at present living in temporary huts. £P.3,458 is needed for wireless apparatus, £P.720 for runway flood-lights, £P.1,000 for a fire engine and ambulance and £P.1,000 for an isolation ward. The total demand on behalf of this aerodrome is thus £P.13,643.

60. We regard the bulk of this expenditure as justifiable. If it is necessary for Government to maintain a large staff far away from the nearest centre of population, it has some responsibility for providing it with reasonable amenities. The wireless apparatus is required in part to replace apparatus borrowed from the Royal Air Force and in part to obviate the present system under which much of the communication with aircraft and the transmission of meteorological reports is dependent upon the complicated remote control of a transmitter at Ramallah with which the apparatus at Lydda is connected by overhead lines. If the wireless apparatus were centred at Lydda a very delicate link which is always apt to give rise to interruptions would be cut out and, by substituting short wave for the present medium wave transmission, communication with airports and aircraft would be possible over greater distances. Runway floodlights are an essential item of equipment at a main airport where night landings often take place, while a fire engine and ambulance should certainly be provided. Government would be open to grave criticism were a serious accident to an aircraft to take place if neither of these facilities were available.

61. We have discussed the need for the provision of an isolation ward with the Director of Medical Services who presses for its construction. Palestine has an international obligation to maintain at least one 'sanitary' aerodrome and Lydda cannot be so declared until an isolation ward is provided. Such a ward is regarded as extra-territorial, on the lines of a quarantine station; it is intended primarily for isolation purposes for diseases such as plague and cholera.

2. HAIFA AERODROME.

62. The second Government civil aerodrome in Palestine is that at Haifa and for this the Director of Civil Aviation recommends an expenditure of £P.25,000 on a terminal building, a hangar and staff quarters, of £P.2,258 on wireless apparatus and of £P.14,500 for extending the length of the runways from 600 to 1,000 metres. We considered whether it would be possible to dispense with the Haifa aerodrome altogether but reached the conclusion that to do so would be a serious set-back to civil aviation; being situated at a port it carries traffic which could not be diverted to Lydda without grave inconvenience. It was the port of call of the through services of the Ala Littoria line and is also a customs aerodrome.

63. In these circumstances, it seems to us that it is incumbent on Government to provide essential services at Haifa but no more, for the present at any rate. We understand that a terminal building, large enough to house these services and affording the necessary facilities for customs, medical and police examinations and capable of extension to meet future needs, could be constructed for £P.7,000. Further than

this we would not go, leaving quarters and hangar for consideration later as and when civil aviation develops. We regard the proposed expenditure on the wireless installation as necessary; at present the only wireless apparatus at Haifa aerodrome is one which was obtained on loan from the Ala Littoria Company, a position which we cannot hold to be other than unsatisfactory.

64. If, as we have suggested, Haifa continues to be classed as a customs aerodrome, the extension of the runways must be undertaken. We are informed that at present taking off and landing on the aerodrome is fraught with unnecessary risk, especially having regard to the high buildings which are being erected in the vicinity; this risk is incurred by large and small aircraft alike as some of the smaller machines require as long a run as do the larger air liners. The Ala Littoria Company at its own expense carried out temporary extensions in order to reduce this risk, but this again we do not consider to be a suitable arrangement; if Government provides an aerodrome at all it is responsible that it should at least afford safe landing and taking-off for the machines which normally use it.

3. TIBERIAS MARINE AIRPORT.

65. The marine airport at Tiberias occupies a curious position; it is used solely by the flying boats of Imperial Airways, the Air Ministry providing a wireless station and refunding to Imperial Airways the cost of operation. The Director is not satisfied with the arrangement and considers that the airport should be under Government control; misunderstanding in regard to wireless communication with aircraft and neighbouring airports now arises owing to the present division of responsibilities. The cost of the staff necessary to assume control of the airport is estimated at £P.860 per annum, against which there would be a saving to the Air Ministry of the grant now made to Imperial Airways for the purpose. It seems to us possible that, if the control were transferred as suggested, the Air Ministry might be prepared to continue their grant but to allot it to the Palestine Government instead of to the Company.

4. KALANDIA LANDING GROUND.

66. The final proposal for new works made by the Director is for the conversion of the Royal Air Force landing ground at Kalandia, near Jerusalem, into a civil aerodrome. The Royal Air Force is prepared to agree but it would be necessary to remove the hill, which now obstructs the approach by air from the east, and to divert the road which now runs across the middle of the ground. The cost of these measures is estimated at £P.20,000. That the conversion would be of considerable service to civil aviation admits of no doubt; Jerusalem is at present a long way from a civil aerodrome and shuttle services between Kalandia and Lydda

or Haifa would certainly tend to popularise the use of air travel by those resident in the capital. But we do not feel that this service is essential and consider that, for the present, it must yield place to other more urgent demands.

5. REORGANIZATION OF STAFF.

67. Finally, the Director has represented that the present staff employed by his department is inadequate for the duties which it has to perform and that in some cases they are underpaid. He has therefore prepared a scheme of revision costing £P.1,788 a year; of this amount approximately £P.1,400 is for additional staff and £P.400 for revision of pay. It has, however, been impossible for us to go in detail into the question of the establishment actually required to run so technical and complicated an organization as a modern airport (most of the expenditure relates to Lydda) with all its varied functions and we consider that any question of increasing or re-grading the staff must form the subject of a separate investigation.

6. SUMMARY.

68. The cost of the proposals made in this section (excluding any expenditure on the reorganization of establishment) is as follows:—

	<i>Non-recurring</i>	<i>Recurring</i>
	<u>£P.</u>	<u>£P.</u>
Lydda airport	13,643	—
Haifa airport	23,758	—
Tiberias marine airport	—	860
TOTAL :	<u>37,401</u>	<u>860</u>

CHAPTER XII.

MUNICIPAL SCHEMES.

1. We shall deal, in this chapter, with three major schemes, those for the water supply to and the drainage of Haifa and that for the drainage of Tel Aviv. We shall also refer briefly to certain schemes which have been preferred by District Commissioners with a view to ameliorating conditions in other municipalities.

A. HAIFA WATER SUPPLY.

2. The provision of an adequate supply of pure water for the town of Haifa and its environs is an urgent necessity. There is at present no general supply of water for the town, the present population of which is not less than 100,000. Drinking water is obtained from cisterns in which rain water is collected: from numerous wells, some yielding brackish water and all in continual danger of pollution from sewage: and from supplies operated by co-operative societies and other private concerns, which are of a varying degree of purity and dependability. There are no reservoirs of any magnitude, and a cessation of pumping by the societies and private water concerns for a single day would leave a great part of the town without water.

3. A detailed scheme has been prepared for supplying Haifa with water from the Wadi Fellah, near Athlit. A rising main some 18 kilometres long will carry the water to the main reservoirs, which will be situated on Mount Carmel, and from these reservoirs it will be distributed throughout the town.

4. The cost of this scheme is estimated at £P.600,000, inclusive of the cost of the distribution system. While we are convinced of the necessity of providing Haifa with an assured and pure supply of water, and of putting an end to the present haphazard multiple private supplies, we are in no way satisfied that this cannot be achieved at less cost than the figure quoted, which appears to us to be abnormally large having regard to the much smaller expenditure incurred on the Jerusalem water supply scheme, where both the length of rising main and the lift were far greater than will be necessary in the case of the Haifa project. We consider that the scheme should be re-examined with a view to ascertaining whether substantial reductions in the estimated cost cannot be made.

5. The scheme depends upon the necessary supply of water being found to be available in the Wadi Fellah. A certain number of bores have been sunk but the site has never been fully explored. Such exploration is essential before any final pronouncement on the project can be made and we recommend that it be put in hand at as early a date as

possible. The necessary plant is available in the country, and the cost of the investigation should not exceed from £P.10,000 to £P.15,000.

6. Based on a capital cost of £P.600,000, the estimated recurrent revenue and expenditure on the scheme during the first ten years after commencement of construction are as below :—

Year	Estimated Revenue	Estimated Debt Charges	Estimated Recurrent Maintenance and Renewals	Estimated Expenditure Total	Estimated Deficit	Estimated Surplus
	£P.	£P.	£P.	£P.	£P.	£P.
1st	7,000	44,193	—	44,193	37,193	—
2nd	3,455	44,193	13,810	58,003	54,548	—
3rd	261	44,193	20,715	64,908	64,647	—
4th	37,365	44,193	27,620	71,813	34,448	—
5th	86,218	44,193	27,620	71,813	—	14,405
6th	99,116	44,193	27,620	71,813	—	27,303
7th	113,948	44,193	27,620	71,813	—	42,135
8th	131,004	44,193	27,620	71,813	—	59,191
9th	150,617	44,193	27,620	71,813	—	78,804
10th	173,172	44,193	27,620	71,813	—	101,359

7. Unless the capital cost of the scheme can be reduced, the problem arises of how the estimated deficit amounting to £P.191,000 during the first four years is to be financed. There appears to be no alternative to seeking a free grant of this amount or a nine years' loan of approximately £P.200,000 to meet the deficit.

B. HAIFA DRAINAGE SCHEME.

8. The question of providing a proper drainage scheme for Haifa has been under consideration since 1927, but the initiation of such a scheme is dependent on the previous provision of an adequate water supply.

9. Haifa has never had a system of main drainage. Prior to the construction of the harbour in 1931-32, eleven sewers discharged on to the beach near low water mark. During the construction of the harbour, a twelve inch intercepting sewer was constructed which picked up these outlets and discharged the sewage to a pumping station under the carriageway of Kingsway, near its junction with Bank Street. From this pumping station a rising main was laid through which the sewage was pumped and discharged at a point 88 meters seawards of the main break-water.

10. The twelve inch intercepting sewer, pumping station and rising main were taken over by the Municipality in April, 1934. Since that date many secondary sewers have been connected to this interceptor, with the result that the pumping station now deals with some 35 per cent. of the town's sewage. A further 30 per cent. of the sewage is discharged through a stormwater drain which empties its contents into the sea just below low water mark, eastwards of the oil dock. The remaining 35 per

cent. of properties in the town discharge their sewage into cesspools and septic tanks.

11. Many of these cesspools and septic tanks are in a most insanitary condition. In the majority of cases the Municipality is unable to alleviate this nuisance as further sewers cannot be constructed without outside financial assistance. Moreover, the existing outfalls cause considerable pollution of the foreshore in the vicinity of the Government Hospital and the oil dock, respectively.

12. The complete scheme provides for the construction of a sea outfall discharging into deep water, some 750 meters north of Ras-el-Krum Point. It also provides for a main intercepting sewer and four pumping stations. All existing sewers will be connected to the main intercepting sewer and it will be possible, by the construction of new secondary sewers, to ensure that only about 10 per cent. of the properties will remain unsewered and have to continue the use of cesspools and septic tanks.

13. The first section of this scheme, which is considered to be the most urgent public undertaking required in Haifa, provides for the construction of the sea outfall and of the main intercepting sewer as far as the junction of King George V Avenue with Bank Street. This would enable almost all the existing sewers to be discharged through the new outfall, the existing temporary outfall near the Government Hospital to be abolished, and the discharge from the outfall near the oil dock to be reduced to a negligible quantity.

14. We consider that, for the time being, attention should be directed towards the construction of the first section of the scheme; the complete project, which provides for the sewerage of extensive areas not yet developed, will not be required for many years to come. The capital cost is estimated at £P.80,000. The revenue from a drainage rate of 3 per cent. of the gross annual value of all properties connected with the system is compared below with the annual anticipated recurrent expenditure :—

Year	Estimated Revenue	Estimated Recurrent Expenditure			Estimated	
		Debt Charges	Maintenance and Renewals	Total	Deficit	Surplus
	£P.	£P.	£P.	£P.	£P.	£P.
1st	—	5,641	—	5,641	5,641	—
2nd	—	5,641	—	5,641	5,641	—
3rd	15,000	5,641	4,880	10,521	—	4,479
4th	15,750	5,641	5,110	10,751	—	4,999
5th	16,537	5,641	5,340	10,981	—	5,556
6th	17,963	5,641	5,570	11,211	—	6,152
7th	18,231	5,641	5,800	11,441	—	6,790
8th	19,142	5,641	6,030	11,671	—	7,471
9th	20,099	5,641	6,260	11,901	—	8,198
10th	21,103	5,641	6,490	12,131	—	8,972

15. Here again a grant or loan for at least five years will be required to meet the deficit during the first two years of the life of the scheme.

C. TEL AVIV DRAINAGE SCHEME.

16. Tel Aviv, the largest town in Palestine, has a population of approximately 150,000 inhabitants, and, with the exception of a few temporary sewers, the sewage runs into privy pits which are no longer able to absorb it. In some cases the surplus is pumped into portable tanks and removed; in others, it remains on the surface until percolation or evaporation or both effect disposal. These conditions are aggravated in winter, owing to the heavy rains. Moreover, there is grave danger of the wells, from which the water supply of Tel Aviv is obtained, being contaminated by the seepage.

17. The systematic emptying of the cesspits by the Municipal Council is, apart from the expense, open to serious objections. Both the public health authorities and the Consulting Engineers, who prepared a scheme as long ago as 1927 and again in 1936, are convinced of the necessity for a complete sewerage system. It is proposed to run a main interceptor approximately due north through the centre of the town with an outfall into the Mediterranean Sea near the northern end. This will enable about three quarters of the total area to be drained by gravity. The outfall will run approximately one kilometre into the sea, carried either in a tunnel or laid on the sea bed. The northern position of the outfall avoids that part of the beach which is most used for bathing, boating, etc. and the general trend of the currents is northward. It is intended to disintegrate the solids before passing them into the outfall. Provision is also made for the disposal of surface water. The scheme provides for a maximum of 300,000 persons with an average dry weather flow of 30 gallons of foul sewage per head per diem.

18. The estimated cost of the scheme is £P.666,000, of which £P.396,000 will fall to be borne by the Municipality and £P.270,000 by owners whose properties will be connected with the system. 40 per cent. of the latter sum is to be collected when the reticulation is completed, the balance being payable in five equal annual instalments. On the other hand, arrears in the annual instalments occur in practice and provision is, therefore, made in the scheme for repayment over a period of ten years from the commencement of the scheme.

19. The following table compares the revenue derivable from the scheme with the corresponding debt and maintenance charges:—

Year	Estimated Revenue	Estimated Debt Charges	Estimated Recurrent Maintenance and Renewals	Estimated Expenditure Total	Estimated	
	£P.	£P.	£P.	£P.	Deficit	Surplus
1st	3,200	7,500	3,000	10,500	7,300	—
2nd	25,500	32,900	4,900	37,800	12,300	—
3rd	48,520	57,820	5,900	63,700	15,180	—
4th	70,780	80,080	6,700	86,780	16,000	—
5th	59,990	69,537	10,743	80,280	20,290	—
6th	75,240	64,497	11,903	76,300	1,060	—
7th	76,400	64,497	11,903	76,400	—	—
8th	70,280	58,377	11,903	70,280	—	—
9th	60,020	48,117	11,903	60,020	—	—
10th	46,160	34,257	11,903	46,160	—	—

20. In this case likewise a grant or loan of £P.72,130 will be necessary to cover the deficit over the first six years.

D. OTHER MUNICIPAL SCHEMES.

I. JERUSALEM MUNICIPALITY.

(a) General.

21. Apart from the schemes for the clearance and development of the areas abutting on the northern and western walls of Jerusalem and the preservation of the Mount of Olives referred to in paragraphs 15 and 16 of Chapter X, a number of projects for desirable services and amenities in the Jerusalem municipal area have been submitted to us. The schemes include the construction of markets, slum clearance, an extension of the sewage system now under construction, the construction and widening of roads, including the completion of the long-projected panorama ring road, and the construction of swimming pools. The estimated cost of these projects is some £P.400,000.

22. We certainly do not deny the desirability of these schemes although we cannot regard the majority of them as suitable objects for Government grants; they are, in our view, essentially such as should be included in the scope of the activities of an Improvement Trust, constituted on the lines which we have indicated in Chapter X. In this category we class the proposals for slum clearance within the area of the new city, for the construction of markets, for road improvements and for the provision of swimming pools and public latrines, the total estimated cost of which amenities is estimated at £P.175,000. To the extent to which they may prove unsuitable for inclusion in the Trust's programme, as, for example, where road widening is proposed in order merely to remove dangerous bottle-necks, the cost of the works should be met from the ordinary resources of the Municipality.

(b) Slum Clearance in the Old City.

23. The question of slum clearance in the Old City of Jerusalem cannot, however, be dealt with on these lines. It would, of course, be impossible to demolish whole blocks because it is unthinkable that the character of the Old City should be entirely changed. It is considered, however, that where possible the insanitary cellars which at present provide living accommodation should be done away with or improved; the conditions in which many of the inhabitants of the Old City now live are a disgrace to civilization. The expenditure of a sum of £P.35,000 would enable considerable improvement to be effected, but it is extremely unlikely that the scheme would yield any appreciable financial return and it could only be executed were a free grant for the purpose provided by Government.

(c) Completion of Sewerage Scheme.

24. A complete sewerage scheme was drawn up by Consulting Engineers some years ago at an estimated cost of £P.346,000. It was not possible or, in fact, necessary then to provide the full sum and a reduced scheme for immediate requirements was put into execution at an estimated cost of £P.150,000. It was originally intended that a loan of this amount should be floated and the Colonial Development Fund agreed to make a grant sufficient to defray the interest charges for the first five years; the loan was not, however, raised, Government advancing the amount to the Municipality from surplus balances. Up to the present about £P.120,000 have been expended and the balance will be spent by the end of 1940-41. Plans recently received from the Crown Agents for the Colonies for the disposal works indicate that the original estimate of £P.150,000 is likely to prove inadequate, the time having arrived when residential development in areas not served by the reduced scheme necessitates the extension of the system to these areas. The estimated cost of the extensions required is £P.45,000.

A further allocation of £P.30,000 is required to finance temporarily the construction of a net-work of sewers within the various quarters so as to bring them within a hundred metres of each property. This expenditure is recoverable from owners of properties connected to the sewers, and the allocation would form a revolving credit, as the contributions from owners of each quarter would be collected before construction was commenced on the next quarter.

Without these further funds the expenditure incurred will be rendered largely sterile as recent development in these areas make the financial potentialities of the whole scheme promising whereas in its present incomplete state the drainage rate is unlikely to cover more than maintenance, operation and renewal charges. The sum required, namely

£P.75,000, should be allotted to the Municipality in the form of a loan and it should be required so to fix its drainage rate as to provide the funds necessary for the service of the whole debt.

(d) Ring Road.

25. Of the road projects in the municipal area of Jerusalem the panorama ring road, which has been under consideration for several years and has constantly been deferred for many reasons, mainly financial, is the outstanding requirement as regards development of the potential amenities of Jerusalem. In order to provide a general amenity for the city, both for aesthetic and commercial use, the town plan provides for a panorama ring road encompassing the city. The Mount of Olives section from the Nablus to the Jericho Road is the most important section from the tourist and aesthetic point of view, as it is designed to give superb views over Jerusalem and the Jordan Valley. The estimated cost is £P.85,000. The section of the road connecting the Jaffa Road and Nablus Road is most important both from the local residents' point of view and as a by-pass road for through traffic. The estimated cost is £P.40,000. The Jericho-Bethlehem Road section, of which the aesthetic and the commercial potentialities are less, would be constructed to a narrower width. It entails much cutting into the rocky hillside. This section, suitable for potash convoy and general traffic can, however, be constructed for £P.25,000, towards which a contribution by the Potash Company might be forthcoming.

The Bethlehem-Jaffa Road section is of minor importance and is mainly necessary in order to complete the ring. The estimated cost is £P.50,000.

The intention is to provide a dual carriage-way with trees and shrubs in the middle, the whole occupying a width of thirty metres. If necessary, it would be possible to construct one carriage-way and establish the plantation from the outset, and to leave the second carriage-way to be constructed at a later date.

26. While the construction of this road is desirable, it cannot be classed as of the first order of urgency. The execution of the project must, we think, depend upon two factors, first, the extent to which it is found to fall within the purview of and can consequently be financed by the proposed Improvement Trust and, secondly, the general policy of Government towards the provision of amenities designed to stimulate and increase tourist traffic, a question to which we have referred in paragraphs 44 to 48 of Chapter XIII.

2. OTHER SCHEMES IN JERUSALEM DISTRICT.

(a) Hebron Water Supply.

27. Some years ago a scheme was carried out in Hebron for the installation of a piped water supply. The funds were provided from the

surplus balances of Government with assistance by way of a free grant of interest from the Colonial Development Fund. The scheme cost approximately £P.11,500. There were at the time no records available regarding the sources of supply and the pumps were installed after two dry seasons. Almost immediately after completion of the scheme the water level rose so that the pumps have ever since been working under water. Every time repair is necessary the well has to be pumped dry at a cost of approximately £P.50. The distribution system also requires extension. The estimated cost of the measures necessary to ensure satisfactory completion of the water supply scheme is £P.10,000, which might well be provided in the form of a loan if it can be shown that the water rates obtainable will suffice to meet the cost of its service and the recurring charges entailed in the maintenance of the scheme.

(b) Bethlehem, Beit Jala and Beit Sahur Water Supply.

28. It was represented to us that £P.15,000 should be allocated for connecting these three places to the Jerusalem water supply, but our enquiries have led us to the conclusion that, in view of the likelihood of the inhabitants continuing to use cistern-water as in the past, the provision of a piped supply cannot be regarded as of primary importance. We have, therefore, refrained from making a recommendation for the execution of the scheme.

3. SCHEMES IN GAZA DISTRICT.

29. The necessity for a drainage scheme for Gaza and for Majdal at a cost of £P.20,000 in each case and for the extension of the water supply of Gaza at a cost of £P.3,000 was represented to us, as also for various minor projects for the expropriation of land for improvements in Gaza town. As regards the last mentioned, the amounts involved and the nature of the schemes were such that we considered that the cost could well be met from the normal resources of the Municipality without recourse to special assistance from external sources, particularly if improvement rates are levied under suitable statutory authority as proposed elsewhere by us.

30. With regard to the drainage scheme and the water supply scheme, we consider that the amounts involved should not prove an excessive burden on these Municipalities provided that long-term loans to meet their cost can be procured.

CHAPTER XIII.

MISCELLANEOUS.

A. PUBLIC BUILDINGS.

No report on development in Palestine would be complete without some reference to the buildings in which the Administration and the various Government departments are accommodated both at headquarters and in the districts. Since the Occupation it has been the policy of Government never to construct a building if it could possibly rent one and the number of buildings of any importance in the whole of Palestine which have actually been constructed by Government for the purposes for which they are used could be counted on the fingers of both hands. Thus it happens that the Central Secretariat, the Supreme Court of Palestine, the Police Headquarters, the various District Headquarters and numerous institutions such as hospitals, asylums, colleges, schools, post-offices, workshops and stores are to be found housed in buildings constructed for other uses and in many cases almost grotesquely unsuitable for the purposes which they are now required to serve.

2. That the system is as uneconomical as it is otherwise unsatisfactory we have no doubt whatever. The rents paid rise as each lease (and most of the buildings are on short-term leases) expires, Government being largely in the landlord's hands as usually there is no alternative accommodation to be had. Very large sums of money have had to be spent on other people's property in order to mitigate some at least of the inconveniences inseparable from using a building designed for one purpose for some purpose completely different and, if a decision to vacate it is taken, further expenditure has to be incurred on restoring the building to its original shape. Many of the buildings are old and in far from good condition and the amount which has therefore to be spent on annual repairs is considerably greater than would be the case had Government constructed suitable buildings for its own use in the first instance.

3. Government has lately set aside funds for the construction of central offices in Jerusalem and an extensive scheme for the provision of rural police buildings is now being carried out. We have elsewhere in this report drawn attention to certain of the worst examples, the town schools, the Women's Training College, the Bethlehem mental hospital, the Railway offices at Haifa, the Public Works Department stores and others, and have made special recommendations for their substitution by more suitable accommodation. But even were these recommendations implemented and the Government offices and police buildings scheme completed, Government would still be spending between £P.45,000 and £P.50,000 a year on hirings for the accommodation of other activities.

It is difficult to say what would be the cost of replacing these hirings by proper and suitable buildings; it is not sufficient merely to capitalize the rents at current rates of interest as the new buildings would have to be constructed so as to provide better and more sanitary working conditions and to obviate some at least of the congestion which obtains at present. In the case of town schools, however, where the same conditions are met, an estimate has been made and, as stated in Chapter VI, it has been found that a capital sum of £P.212,264 would be required to replace buildings now rented at £P.6,180 a year. Using the same proportion, the sum which would be involved were Government to provide itself with suitable buildings in place of the hirings now costing from £P.45,000 to £P.50,000 would probably be of the order of £P.1,700,000. In view of the magnitude of this sum and of the fact that its expenditure can hardly be regarded as essential to development, we reluctantly refrain from making any recommendation in this regard.

B. HOUSING.

4. At various stages of our inquiry, the question has arisen of Government's responsibility for improving the conditions of housing of the poorer classes of the community in Palestine. In particular, our attention has been drawn to the problem as it affects Haifa, in respect of which the District Commissioner has written "Haifa is the port of entry to Palestine for many visitors and most of the trade, and it is obviously undesirable that first impressions of the country should invite comparison with the worst excesses of the British industrial areas of the 19th century". We have also received an application from the 'Shichun' Workmen's Housing Company, Limited, asking for assistance from the Colonial Development Fund towards the building of workmen's houses in Haifa and elsewhere.

5. In Chapter X, we have recommended that Government should at once take up the question of the formation of Improvement Trusts in the larger cities. We believe that such Trusts will prove to be the best agency for dealing with slum clearance schemes. In paragraph 12 of that chapter we have referred to the possibility of slum clearance in Haifa being thus effected and we would add to what is there said that we consider that the legislation constituting the Trusts should empower them, on the demolition of slum property, to replace it by decent and sanitary buildings where private enterprise is not prepared to do so. In paragraph 22 of Chapter XII, we have recommended that slum clearance in the new city of Jerusalem should be dealt with on the same lines, and in paragraph 29 of the latter chapter we have further suggested that a somewhat similar procedure might prove possible even in the case of smaller municipalities, such as Gaza.

6. For the reasons given in paragraph 18 of Chapter VIII we are not prepared to recommend that direct assistance in the matter of provision of finance for housing schemes should be afforded by Government. The need for cheap working-class houses is recognised, but having regard to Government's responsibilities and commitments in other directions we are forced to the conclusion that such funds as may be necessary to carry these schemes into effect must be provided from other sources.

C. SOCIAL WELFARE.

7. There is a small Probation Service in Palestine, attached to the Department of Education, but its title is somewhat of a misnomer having regard to the duties which its officers are expected to perform. The service was originally brought into being to conduct reformatories and to deal with cases of juvenile delinquency, but its functions have gradually been extended until now they cover social welfare activities in general. With certain exceptions in the Jewish community, the charitable institutions which, in most countries, assist the Probation Officer and follow up his work are non-existent in Palestine, with the result that the services which such institutions render elsewhere devolve, where they are performed at all, on the officers of the Probation Service. We are informed that some half of the time of these officers is devoted to family case work and other welfare activities of a non-statutory nature and that such activities constitute, in fact, the most important and difficult side of their duties.

8. This extension of functions is clearly illustrated in the history of the service. For many years the only contribution by Government towards the problem of social welfare was a reformatory school (Howard Home) for boys at Tulkarm, conducted by the Department of Police and Prisons. In 1936, in view of the issue of new legislation, a small Probation Section was formed in the Judicial Department, but this was almost immediately transferred to the Education Department, a development in the right direction. In the year 1939, the reformatory school at Tulkarm was also transferred to the Education Department and finally, in 1940, the (Lady) Inspector of Welfare Work was transferred from the Chief Secretary's Office to the Probation Service.

9. Owing to the disturbances, it was necessary in 1939 to transfer the boys from Tulkarm to hired buildings at Bethlehem and Mekor Haim, Jerusalem. The Arab boys were transferred to the former and the Jewish boys to the latter. A special camp at Acre Stock Farm has also been established for older boys. A reformatory school for girls is conducted in Jerusalem by the Jerusalem Social Service Association, Government contributing an annual subsidy of £P.650 towards the cost of wardresses, teachers and rations. Supervision over this school is exercised by the Inspector of Welfare Work.

10. Although, as already stated, a certain amount of social welfare work is performed by the Probation Officer, as also by the Inspector of Welfare Work who, in addition to her probation, factory and general welfare duties, is responsible for the supervision of relief, where such is afforded, outside the Old City of Jerusalem, the organization is too small to do more than touch the fringe of the problem.

11. It is now suggested that Government Welfare Officers be appointed in the principal towns, to give advice and assistance to the Arab community on the lines usual in family case work. In the Jewish community the social workers of the Kehilloth (Local Committees) would do similar work. The Welfare Officers would work in conjunction with the Probation Officers, whose titles might remain but whose duties would be more clearly defined by Regulations. It would then be possible to give official recognition and direction to the preventive and welfare duties which they are at present attempting to perform. For this purpose an additional allocation of £P.900 per annum will be required for personal emoluments and £P.900 per annum for other charges.

12. At present, institutions accepting delinquent children receive £P.30 a year per child. Three boys are being educated on these lines at Schneller's Orphanage in Jerusalem, and there are certain Jewish institutions which, given guidance and control, are suitable for the purpose. The total appropriation under this head in the approved estimates for 1940-41 is £P.500. There is urgent need, in both the Arab and Jewish communities, for an expansion of the accommodation available in institutions of this kind for delinquent and neglected children who otherwise become the criminals of the future. We suggest that the minimum annual allocation for the next ten years should be £P.2,500.

13. A large number of charitable and relief societies are in operation in Palestine. Some of these are well conducted and fulfil useful functions; others are limited in scope and ineffective in practice. In the Jewish community there is a good deal of overlapping and waste of effort, while in the Christian community numbers of small autonomous groups exist side by side with more general missionary enterprise. Exclusively Moslem social agencies are lacking, but there are a few small charitable and relief societies working chiefly through women's organizations.

14. We consider that the time has come when Government should exercise some degree of guidance and control over societies such as are mentioned above. It may eventually be advisable to enact legislation regulating their conduct and finances, but at the moment we believe that much could be done by persuasion and by the grant of assistance to those which perform essential services and satisfy certain standards in such performance. We recommend that an allocation of approximately

£P.8,000 be earmarked for this purpose. Where, as in Palestine, there are no old age pensions, no unemployment benefit, no compulsory insurance and no Poor Law institutions, it may well be held that there is justification for the grant of assistance to institutions which relieve Government of duties and expense which elsewhere are regarded as responsibilities of the State.

15. It has been proposed that a separate Department of Social Welfare should be established, to include the present Probation Service and the reformatory schools. We are, however, opposed to the creation of new small departments and, while we are prepared to agree that social welfare is hardly a function of the Director of Education, we are unable to suggest any other department to which the welfare services could more appropriately be attached. We are at least satisfied that the present arrangements are in no way prejudicial to the interests of the social services. But we would recommend that the budget of the Probation and Welfare Service should be regarded as a separate entity and that every effort should be made to avoid reducing the very limited allocations made for probation and social services in the event of retrenchment in expenditure on education being required.

D. STATISTICS.

16. The only recommendation which we have to make in connection with the Department of Statistics is for the provision at an early date of the sum of £P.2,000 for the calculation of a revised cost of living index number based on a detailed study of family budgets.

17. The current statistics of the cost of living have reference to an index figure based on a family budget investigation made twenty years ago. The families comprising the sample were those of clerks in the second division of the public service, a special class of people whose experience is far from being typical of urban life in general. Twenty staple commodities were selected, a number certainly too small, and nothing was included for rent and clothing which are among the most important items of expenditure of an urban population. The resulting index is therefore quite unreliable and in any event, having regard to the changes in the conditions of urban life which have taken place in Palestine since 1921, is hopelessly out of date.

18. A reliable cost of living index figure is the indispensable foundation of all schemes for the social benefit of a country as it provides the best and often the only means of ascertaining the economic conditions of the people for whom Government has responsibility. A Labour Department, if one is formed as suggested in Chapter IX, would work under grave disabilities in the absence of a reasonably sensitive index. Wages

must be related to cost of living, but there can be no such relation if the cost of living is not known. We consider that very early steps should be taken to rectify this deficiency.

19. A scheme for an investigation into family budgets has been prepared; it is estimated to cost £P.2,000, £P.1,000 for Arabs and £P.1,000 for Jews, and the inquiry would extend over a year. We recommend that this inquiry be authorized as soon as possible so that the Government Statistician may be in a position to initiate the preliminary measures, including the instruction and training of district and other officers, necessary to enable the investigation to be carried through.

E. ANTIQUITIES.

20. The Director of Antiquities has placed before us a proposal, often mooted in the past and, indeed, generally accepted in principle, for the establishment in his department of a technical section in order to enable the Government of Palestine to conserve and maintain historical monuments in this country. No provision has ever been made for this purpose nor is there any specialist staff, either in the department or elsewhere in Palestine, which is competent to undertake this highly specialized work.

21. The need to make provision for preserving ancient monuments was recognized as early as May 1928 when the High Commissioner wrote in a despatch to the Secretary of State:— "Under article 21 of the Mandate there is the general duty of protecting antiquities..... It would seem that there must eventually be devised in Palestine a special technical office charged with the conservation of historic monuments". Again, in a despatch dated the 15th November, 1928:— "It would, in my opinion, show an inadequate appreciation of our responsibilities were we to leave matters as they now are and to omit for any reasons whatever taking the steps necessary for the preservation of Palestine's monuments". At the same period it was decided that the administrative control of the technical section, when appointed, should be through the Department of Antiquities.

22. A provisional survey shows that there are some 125 monuments which call for immediate conservation and future maintenance. Many of these are situated in the principal towns of Palestine and some are in active use. The treatment of these buildings is an essential problem in the planning and development of the quarters in which they are situated and, were the section in being, one of its functions would be, while itself providing the technical planning and supervision, to encourage the owners or municipalities concerned to contribute, financially and actively, within the means at their disposal, towards the execution of the works.

23. The annual cost of the section would be £P.980 for personal emoluments and £P.3,200 for other charges, of which latter sum £P.3,000 represents the cost of labour and materials.

24. We are in agreement with the Director of Antiquities that the present situation under which Government takes no steps at all to conserve the monuments in the country is highly unsatisfactory and that the constitution of the proposed technical section is most desirable if money for it can be found.

F. HOME AND VILLAGE INDUSTRIES.

25. We have devoted considerable attention to the question of the possibility of the revival and development of home and village industries, more particularly in view of the fact that whereas in the neighbouring territories of Syria, Cyprus and Egypt industries of this type provide employment for large numbers of the rural population, such industries are virtually non-existent in Palestine. Village industries on a modest scale are established in certain districts—at Majdal. Bethlehem and Gaza, for example, spinning and weaving are practised, at Bethlehem mother-of-pearl is carved and at Hebron glass is manufactured—but these industries are not in a thriving condition and apart from a small output of lace and knitted goods there are no home industries in the true sense of the term.

26. We have no desire to suggest that industries which cannot be established on sound economic foundations should be fostered as, in our opinion, more harm than good is done by artificial stimulation (through Government subventions or by the erection of inordinately high tariff barriers) of local industries which are dependent for their continued existence on such support. We are, however, convinced from the experience of neighbouring territories that conditions in Palestine do not differ to so great an extent as to preclude the possibility of a revival of peasant industries provided that Government assistance by way of instruction and proper direction with reasonable fiscal safeguards is forthcoming.

27. The resuscitation and encouragement of home and village industries is of practical importance to Palestine where for some periods of the year the rural population is insufficiently occupied in agricultural pursuits. In consequence there is an undesirable drift towards the towns with the object of securing casual employment and the ill effects of idleness become apparent in political unrest.

28. A revival of home spinning and weaving would do much to counteract this state of affairs and would at the same time improve the economic position of the peasantry. As a craft it is well understood in Palestine and although it has fallen into disfavour during recent years largely owing to the destructive competition of piece goods and wearing

apparel manufactured in Syria (which competition has recently been very considerably modified by the revised Palestine-Syria Customs Agreement imposing two thirds of the normal duty on Syrian manufactures) a healthy revival should not be impossible of attainment. We do not envisage any grandiose scheme for capturing the local piece goods market but rather a gradual satisfaction of family and household requirements through the efforts of the family. That there is sufficient time for one or other of the members of a family to operate a loom is scarcely open to question and, if steps can be taken to secure the requisite looms and to provide the necessary tuition and direction, establishment of the industry in this restricted sense must be on an economic basis as there is no expenditure on labour. From satisfaction of family requirements to the supply of wider markets with a probable consequential transfer from manual to power looms is a step dependent almost entirely on skill and competitive costs. This stage has already been reached in neighbouring territories but in Palestine the process of evolution may be more gradual, improvements being effected in the first place within the villages or settlements by specialisation in the preparation of warps, etc., or in the utilization of locally machine-spun yarn.

29. In order to achieve success, however, active and sustained assistance on the part of Government in the matter of tuition and direction is essential. So far as tuition is concerned, a weaving section has been in operation at the Majdal Technical School since September, 1939. No machine looms have been installed but hand loom teaching is proceeding and students are being taught the elements of textile manufacture on correct technological lines following the syllabus of the Bradford Weaving School. To establish this section on a proper basis the Supervisor of Technical Education recommends the following expenditure:—

CAPITAL EXPENDITURE.

Construction of workshop and store to accommodate 15 to 20 pupils	Approx. £P.600
12 looms and accessories	£P.500
	<u>£P.1100</u>

RECURRENT EXPENDITURE.

Yarn stocks per annum (partly recoverable from sales)	£P.200
2 instructors at £P.7 p.m.	£P.168
	<u>£P.368</u>

30. We strongly support this recommendation and suggest that, as soon as the necessary teaching staff is available, similar schools should be set up in other parts of the country such as Gaza and Bethlehem where

weaving has not entirely died out. In this manner a knowledge of correct weaving processes will be disseminated throughout the rural and semi-rural districts of Palestine in due course.

31. As regards direction of the industry, although officers of the District Administration can do much to sustain interest and stimulate expansion of spinning and weaving in rural districts we consider that travelling instructors with technical and practical experience working in close contact with the District Administration are also necessary, the number engaged being dependent on the progress of tuition in the schools. In the absence of a Department of Commerce and Industry (which in Egypt exercises supervision over home and village industries) we suggest that the Economic Adviser might act as co-ordinating authority, general direction, including that of the activities of travelling inspectors, being placed under his control.

G. POST OFFICE SAVINGS BANK.

32. The ultimate establishment of a Post Office Savings Bank in Palestine has been envisaged for many years and certain provisions for its operation are included in the Post Office Ordinance, but up to the present no decisive steps towards its inauguration have been taken by Government.

33. One of the chief difficulties in the way of establishing a Post Office Savings Bank some years ago was the lack of suitable premises, and it was anticipated that on completion of the new General Post Office in Jerusalem the requisite accommodation would become available. We understand, however, that since the outbreak of war the rooms which were designed to accommodate the savings bank have been occupied by the Chief Censor.

34. Apprehension that the bank might operate at a loss, thus causing a drain on local revenues, and the opinion held in some quarters that the facilities for small depositors already afforded by certain of the commercial banking institutions provided an adequate alternative to a Post Office Savings Bank were among other factors which militated against its establishment.

35. We do not consider that such facilities for small depositors as exist in the larger towns can be regarded as a reasonable alternative to a Post Office Savings Bank; in the one case only a small section of the urban population, having some acquaintance with banking methods, is catered for whereas in the other case a very large proportion of the entire population both urban and rural would be enabled to deposit or withdraw their savings with a minimum of formality in the many post offices operating throughout Palestine. The promotion of thrift through the medium of co-operative societies is already the accepted policy of

Government and we fail to see why thrift should not also be encouraged on a far larger scale by the simpler method of establishing a savings bank which merely entails a small expansion of the existing machinery of the Posts and Telegraphs Department. Even in the most backward countries experience has shown that Post Office Savings Banks perform a useful if not an essential function and that the inhabitants are quick to take advantage of the opportunity of depositing their savings in the safe custody of Government.

36. As regards cost, it is inevitable that in the foundation of an institution such as a Post Office Savings Bank the estimates of the number of depositors, the extent and value of their deposits, the working expenses, the amount payable as interest to depositors and the income likely to be derived from investments must at the outset be conjectural. On the assumption that by the end of the first year deposits by the public would accumulate to an aggregate of £P.50,000 and that interest would be payable at the rate of approximately $2\frac{1}{2}$ per cent. per annum for each completed month of deposit, the Postmaster General estimates that the loss on the first year of working would be approximately £P.1,350 after making provision for the purchase of accounting machines costing £P.400. If, however, in the second year total deposits increased to £P.100,000, a small working profit should accrue. Thereafter it is not unreasonable to suppose that the bank would be able in due course to repay the deficit incurred in the early stage of its establishment and to continue to operate without Government assistance.

37. We are not in a position to examine detailed proposals in regard to the rate of interest payable to depositors or the actual staff required to operate a Post Office Savings Bank, but we are fully satisfied that even in the most unfavourable circumstances the contingent liability of Government is negligible in comparison to the benefits accruing from the establishment of a Post Office Savings Bank in Palestine. We have therefore no hesitation in recommending that arrangements for the establishment of such a bank should be made without further delay.

H. METEOROLOGY.

38. It is only in the last three years that a proper organization for the collection of meteorological records and the general study of meteorology has been established in Palestine; meteorology was, previously, a subsidiary activity of the Department of Agriculture. The progress of civil aviation and the necessity for preparing continuous weather reports and forecasts for communication to aircraft rendered this special organization necessary; it is stationed at Lydda airport and is under the control of the Director of Civil Aviation.

39. Although great progress has been made since the transfer took place, much still remains to be done. The hill region of Palestine and the greater portion of the Negeb are, to a large extent, unknown quantities from the meteorological point of view. The present network of stations is insufficient to provide the information which the International Meteorological Organization demands and certainly fails to meet the essential needs of the Irrigation Service. An increase in the number of stations is highly desirable; information could then be collected and collated which would be of great utility to such services as those of agriculture, public works, forestry and fisheries.

40. The Meteorological Officer has prepared a scheme for the collection of the full information which is required by civil aviation and by services such as those referred to. It involves an initial expenditure of £P.4,200 on instruments, and recurrent expenditure of £P.474 a year on maintenance and £P.1,992 a year on staff, including the cost of the compilation and calculation necessary in connection with the observations. In addition, it is necessary to provide a sum of £P.250 for the maintenance of the present stations; the estimated cost of such maintenance is £P.400 but for reasons of economy the amount was reduced to £P.150 in the budget of the current year.

41. While we admit that it would be satisfactory if observations on this scale could be made, we consider that the scheme is more ambitious than Palestine can afford. We would confine the extension of the present service to the erection of three new full meteorological stations in the hill regions and four in the Jordan Valley, the provision of 45 rain-gauges (of which half should be self-recording thus showing the intensity as well as the total quantity of the rainfall) in areas where there are no stations at present, the extension of upper air observations for civil aviation purposes, the establishment of eight coast stations, mainly for wind records, required by the Fisheries Service and the erection of four meteorological stations and four integrating rain-gauges in the Negeb, the latter in uninhabited portions where observations can only be made at infrequent intervals. The cost of these proposals would be :—

	<i>Initial</i>	<i>Maintenance</i>	<i>Staff</i>
	£P.	£P.	£P.
7 full meteorological stations	700	140	252
45 rain-gauge stations	335	33	95
Upper air observations	50	10	60
Fisheries stations	334	34	70
Stations in Negeb	500	60	328
Existing stations	—	250	—
Total	1,919	527	805

42. It has been suggested that, in order to complete and augment the Palestine service, the Palestine Government should erect and maintain a number of stations in Trans-Jordan. This is a proposal which we feel ourselves unable to endorse.

43. The Director of Civil Aviation has further recommended the employment of additional establishment on the work at present done to the extent of £P.582 a year and a revision of the grading of the existing establishment at a cost of £P.747 a year. The remarks which we have made in paragraph 67 of Chapter XI regarding his proposals for the re-organization of the civil aviation establishment in general apply to this proposal also. It should, in our opinion, form the subject of a separate investigation.

I. TOURIST TRAFFIC.

44. Although in present circumstances prospects of expansion of tourist traffic may appear somewhat remote, no report on a long-range policy of development of Palestine would be complete without some reference to the attitude of Government towards this important subject.

45. That Palestine offers unique attractions to visitors of many races and creeds is indisputable and it is possibly for this reason that since the Occupation only a few hundreds of pounds have been contributed by Government towards the expenses of advertising this country as a tourist centre. The assumption that the religious and historical associations of Palestine were in themselves sufficient to attract a constant stream of pilgrims and other visitors without encouragement in any form on the part of Government appears to have held sway for many years. So firmly was this opinion held that in 1928 a proposal, which was subsequently abandoned, was made to impose a tax on tourists in order to defray the expense of conserving historical monuments (see paragraphs 20 to 24 of this chapter) and it was not until 1935 that a small grant of £P.500 was made to the Tourist Development Association of Palestine towards the cost of advertising the country with a view to stimulating the flow of tourists to Palestine. Municipalities were invited to subscribe and many expressed their willingness to do so. The disturbances, however, supervened, tourists became a liability rather than an asset, subscriptions from the municipalities did not eventuate and the Government grant was reduced to £P.175 per annum.

46. Citriculture, which is by far the most important export industry of Palestine, is faced with world overproduction and is dependent for its continued existence on markets of limited absorptive capacity. In consequence the margin of profits to the citrus grower is at best dangerously small and the prospects of any great expansion of exports in other

directions do not appear to be very encouraging. On this account stimulation of a most valuable invisible export in the shape of tourist traffic becomes a matter of vital importance to Government and to the country generally as a means of redressing the unfavourable balance of payments.

47. We do not subscribe to the view that the country will advertise itself or that if additional advertisement is necessary the immediate beneficiaries such as travel agencies, hotels, railways and the like should meet the full cost. Other countries such as Switzerland and Egypt with great natural or historical attractions have regarded such attractions as a justification for extensive advertising and the governments of these countries have taken a leading part in the proper organization of a tourist industry, making substantial contributions to the funds necessary for the stimulation of tourist traffic. From the point of view of immediate financial advantage Government in common with hotels, tourist agencies, etc., participates in the profits accruing from an improved turnover consequent upon an increase in the spending population and for this reason alone a contribution by Government towards the expenses of securing this expansion of turnover would appear to be justified.

48. We therefore recommend that, as soon as circumstances permit, Government should review the whole question of the organization of the tourist industry and should accept the principle that as a beneficiary Government should assume its proper share of responsibility as regards both finance and organization.

J. NEW DESIGNS FOR POSTAGE STAMPS.

49. A matter not unconnected with the advertisement by Government of the attractions of Palestine from the point of view of the tourist is the question of the issue of a new series of postage stamps. In the neighbouring territories of Cyprus, Syria and the Lebanon, among many other countries, pictorial designs illustrative of the attractions of the country have been adopted mainly with this object in view, the stamps being printed by the photogravure process which makes possible the printing of stamps in bold colours and detailed designs.

50. The present series of Palestine postage stamps has been in use since 1927 and is still printed by the surface printing process. It is the universal opinion that the issue is indifferent in quality and unattractive in design and colouring, making no appeal whatsoever to the prospective tourist. Moreover we understand that the design does not conform to the International Postal Regulations in that no indication is given of the currency denomination of the figures appearing on the stamps.

51. Proposals for a new and more attractive issue have been made from time to time since 1934 but for a variety of reasons action has been deferred. We consider that full justification for a new issue exists and recommend that the question be reopened at the first convenient opportunity.

K. GENERAL ADMINISTRATION.

52. In our discussions with District Commissioners, the inconvenience caused by the fact that the boundaries prescribed for the activities of departmental officers are frequently not coterminous with the boundaries of districts and sub-districts was mentioned on several occasions. The Gaza district affords a particularly flagrant example, the controlling officers of various departmental activities having their headquarters in no fewer than three other district areas. We were especially impressed with the necessity for an assimilation of the boundaries of the charges of superior Police Officers with the district and sub-district boundaries, and we consider that steps should be taken as soon as possible to rectify the present situation which is little short of chaotic. There is, of course, no objection to the area of a departmental supervisory officer covering more than one district or a number of sub-districts, but the boundaries of departmental areas should conform so far as practicable to administrative boundaries. We were informed that, in some cases, the areas controlled by certain officers were determined according to the race of the officer. While this may be necessary in periods of unrest, we think that this consideration should generally be subordinated to the accepted norm of administrative convenience, namely, coterminous departmental and administrative boundaries.

CHAPTER XIV.

SERVICE DEPARTMENTS.

A. PUBLIC WORKS DEPARTMENT.

1. REORGANIZATION OF DEPARTMENTAL ESTABLISHMENT.

The Director of Public Works has made two demands on behalf of his department, first, for a reorganization of his departmental establishment and, secondly, for the removal of the departmental stores from Jerusalem to Haifa.

2. In 1936, our Chairman, Mr. Harris, was deputed to draw up a scheme for the reorganization of the Public Works Department establishment. After an examination of the position as it then existed, he reported that, having regard to the cost of the works to be executed, the cost of staff had been allowed to sink to a figure so low that neither efficiency in administration nor economy in construction was being secured. His proposals for reorganization provided for decentralization from the Director's office to two Superintending Engineers, one stationed at Haifa in the north of Palestine and one at Jaffa in the south, for the proper staffing of the offices of the various District Engineers and for more effective financial control throughout the department. The cost of the scheme (which was designed in relation to a programme of works costing £P.2,000,000 a year, this being the expenditure anticipated in 1936-37) was estimated at £P.105,000 or about £P.20,000 more than the amount then being spent on staff. Of the total cost, about £P.80,000 represented the provision for the permanent nucleus of establishment required in all circumstances and £P.25,000 that for temporary additional staff necessary to cope with the extensive programme then envisaged.

3. The expenditure proposed was justified as follows in Mr. Harris's report.

“Although I consider that the establishment now proposed will be in a position to undertake any work which is likely to be demanded of the department, I regard it as the very minimum with which efficiency and economy can be secured. So long as the present rate of development continues and an annual expenditure of upwards of two million pounds is in contemplation, the cost of the proposed staff represents only 5 per cent. of the cost of the work to be done, a percentage which is not, I believe, attained in any other Colony in which the operations of the Public Works Department are of comparable magnitude. It is also a lower percentage than has ever been attained in Palestine in the past. Even were the expenditure halved, the establishment charge would still be very reasonable.

“It may possibly be asked how matters would stand in the event of sudden financial stringency dictating a drastic reduction of the programme. In such an event there is, of course, bound to be a rise in the establishment percentage; for example, between 1928-29 and 1931-32 the percentage in Ceylon rose from 9.92 to 31.15 and in Nigeria from 10.88 to 48.34. No percentage of this order is to be feared in Palestine even in the most unfavourable circumstances; of the total cost of my proposals, some £P.80,000 represents the nucleus of permanent establishment while the balance represents temporary staff, such as architects, quantity surveyors, clerks of works, foremen, overseers and a certain proportion of the clerical establishment, which is susceptible of expansion or contraction with fluctuations in the amount of work. The cost of maintenance has already reached a figure of £P.323,000 and this is increasing steadily at the rate of from £P.40,000 to £P.50,000 per annum as more and more buildings and roads are completed; if to this is added a minimum programme of capital works it seems unlikely that Public Works expenditure will, even in unfavourable circumstances, fall in any year below about £P.600,000. On this figure, the cost of the nucleus establishment represents a percentage of 13.33 which, as a percentage to be reached only in an emergency, can hardly be regarded as anything but moderate.”

4. The scheme of reorganization was accepted by Government and recommended to the Secretary of State but, owing to the financial stringency consequent on the disturbances, it was never brought into effect. On the contrary, the expenditure on Public Works establishment has been still further drastically decreased since the investigation of 1936 was made.

5. The Director of Public Works is now urging that the reorganization scheme, with one or two slight modifications, should be brought into operation, the resulting charge for permanent establishment, which is all that is at present required, being estimated at £P.83,000. It is not altogether easy to compare this figure with the existing cost as certain classes of staff, which should properly be charged to establishment and the cost of which is included in the figure quoted, are at present being charged directly to the works on which they are engaged. It is probable, however, that an increased expenditure on staff of all kinds of the order of £P.20,000 is involved. We endorse the Director's recommendation and would lay stress on the fact that, if more is spent on staff, there should be a countervailing saving in works expenditure. We quote below a minute by Mr. Harris on this point which was reproduced in the despatch with which the scheme was submitted to the Secretary of State.

“I should like to make it quite clear, in case this is not sufficiently brought out in the report, that the whole object of the reorganization is to obtain increased efficiency which, in the case of engineering works, is synonymous with economy. With the present almost complete lack of superior control, and with under-staffing below, it would be nothing short of a miracle if the maximum of economy in execution were achieved, and I have no hesitation in saying that it is not. The scheme provides for an adequate executive staff, coupled with proper supervision on the technical side and with an effective Treasury control on the financial side; in my opinion, this will lead to a definite saving of money under the head of works expenditure. To cover the extra staff proposed this saving would have to amount to only from one to two per cent. of the present cost of the works; if the scheme is adopted and properly administered, I anticipate very much larger savings than this. Although the estimated cost of the reorganization scheme, under the head of personal emoluments, is in the neighbourhood of £P.20,000, it should not, in actual fact, cost Government a penny; there should be a definite saving, due to the scheme, on Public Works Department expenditure as a whole, even though exactly the same works are executed as are contemplated at present.”

2. PUBLIC WORKS STORES.

6. We come now to the Director's proposal for the removal of the Public Works stores from Jerusalem to Haifa. We quote from the section of Mr. Harris's report which deals with this subject.

“With the exception of certain heavy imported articles, such as steel bars and the larger sizes of pipes, which are stocked at Haifa, the unallocated stores of the department are kept in custody in Jerusalem. The bulk of them are stored in a building in the Street of the Prophets but, owing to lack of space, certain articles, in particular paints and oils, are kept in the courtyard of the headquarters building.

“Anything more unsuitable for its purpose than the main store it would be difficult to imagine. The building was designed as a residence with narrow passages, steep stairs and rooms intended for dwelling purposes. Many of the rooms are, indeed, so small that it has been impossible to instal shelving in them, as such installation would leave no space for moving goods. Articles have to be placed not where they can conveniently be assembled but where space for them can be found; spare parts of a single unit may be in three different places, heavy parts outside, lighter parts downstairs and the lightest spares upstairs. Similarly any small indent for general stores including, say, nails, screws, wire and paint, will probably entail

collecting the articles from two separate buildings, the stores proper and the sheds at headquarters a furlong away, and from several separate rooms and floors. The inconvenience of handling stores in this way is very great and the extra cost entailed must, in the long run, be considerable.

“The lack of space militates against the efficient custody of the stores in other ways also. Both the building and the small area of ground outside are so congested that, when stores are received in cases or bales, it is often impossible to find space in which to unpack them and to check their contents. Systematic counts of balances of stock are also rendered extremely difficult owing to the problem of finding anywhere to put the articles while they are being counted. There is the further administrative drawback that one of the main qualifications, if not the main qualification, required in the staff is that of being able to locate articles in the maze which the stores present. In consequence, the absence of any of the regular staff seriously hampers all work connected with them.

“Apart from these disadvantages, the stores are exposed to a very real risk of fire. Petrol and oil, in small quantities certainly, but quite sufficient to cause a serious conflagration, are kept in their immediate vicinity and the old buildings would stand no chance of survival if such a conflagration broke out.”

7. It is clear that the stores should be moved from their present location and they would certainly be more conveniently and economically situated in Haifa than on a hilltop in Jerusalem. Government land is available for the purpose in Haifa; the cost of the necessary buildings would be about £P.8,000.

3. MECHANICAL WORKSHOPS.

8. The removal of the mechanical workshops (at present located in close proximity to the stores) to a more convenient site is also highly desirable. Mr. Harris describes the existing position as follows:—

“In so far as congestion is concerned, the same remarks are applicable also to the workshops, which are situated immediately behind the stores. The site was chosen when the operations of the department were on a far smaller scale than now and the development which has since taken place has altogether outstripped its possibilities. I have already referred to the large amount of mechanical plant in the possession of the department; a proportion of this is, in the nature of things, continuously under overhaul, and so restricted is the space that the whole area of the shops is in a state of congestion caused by the number of steam rollers, mechanical vehicles and the like under or awaiting repair. The amount of room available for machinery is too small to admit of really efficient working, the

whole lay-out is necessarily such that much double handling is inevitable, and the space which can be allotted for the storage of plant withdrawn from the districts when no longer there required is quite inadequate for the purpose. The work of the shops is bound to expand as the operations of the department extend; here again there is, however, no room for such expansion and any growth in the volume of work coming in cannot but be accompanied by a decrease in general efficiency.

“The present site of the shops is, moreover, quite unsuitable for an undertaking of the magnitude to which they have grown. They are on the top of a hill, necessitating unnecessarily heavy haulage of plant, and are in the middle of a residential district where they cannot but be a nuisance to the surrounding neighbourhood. Indeed, the provision of certain machines, such as steam hammers, has had to be vetoed owing to this consideration. On all counts, I regard the removal of the shops to a more suitable site as an important matter; the provision of proper accommodation, even if expensive in the first instance, is bound to prove economical in the long run.”

9. The Director considers it desirable that the workshops should be situated near Jerusalem as the Chief Mechanical and Electrical Engineer, who is in charge of the shops, is also the Director's adviser on other technical questions and must, therefore, be stationed at headquarters. All that is therefore proposed is the removal of the shops from their present location in the middle of the city, where they constitute something little short of a public nuisance, to a site outside but near the town. No definite project for such removal has yet been framed; the cost of buildings would probably be about £P.8,000 (including a small store for workshop stores and other stores required in connection with work in Jerusalem); no figure can be given for the cost of land until a site has been selected. On the removal of the stores and workshops there will be a countervailing saving of £P.962 on account of the rent of the present buildings.

4. PUBLIC WORKS OFFICES AND YARDS.

10. What is true of the main stores and workshops is true of the Public Works offices and building yards at the headquarters of District Engineers. These are located where buildings for rent could be found and without reference to their convenience or to their effect on the amenities of the neighbourhood, although noisy operations, such as riveting, etc., have to be conducted in them. It is desirable that such offices and yards should be located on sites selected *ad hoc*. Here again, no estimate for their removal has been made but, having regard to the rents, amounting to £P.1,097, now paid for the accommodation in question, the cost of providing suitable accommodation would probably be of the order of £P.38,000.

B. GOVERNMENT PRESS.

11. We included the Government Press in our survey of Government's activities on the ground that additional work in almost any department necessitates additional printing. It seemed to us, therefore, that the initiation of a comprehensive programme of development might well cause a material increase in the work which the Press is required to undertake and we desired to be assured that it was in a position to deal with such an increase. As a result of our examination of the situation, we are convinced not only that it is incapable of taking on additional work but that it is both underequipped and understaffed for dealing with the volume of work which already comes to it.

12. The Press is at present being operated far beyond its proper capacity. The four linotype machines installed are continuously in operation for about twenty hours out of the twenty-four, a process which results in their rapid deterioration. Very much the same is true of the printing presses. Owing to the pressure of work no opportunity is ever afforded for the periodical overhauls which are essential if full efficiency and economy are to be obtained from machinery of this kind. A further serious feature of the situation is the fact that no spare machines are available; if a linotype machine or printing press breaks down (and such breakdowns are bound to be more frequent than would be the case were the machines not so overworked) the whole output is retarded until repairs can be effected. Fortunately there have been no major accidents since the machinery was purchased and it has been possible to cope locally with the necessary repairs, but it is difficult to regard with equanimity a position such that, should a breakdown occur involving, say, a major part of one of the larger presses, the whole process of Government printing would be thrown out of gear for months while spare parts were being obtained from the makers. In the case of subsidiary machines, such as stitchers and folders, any breakdown results in this laborious work having to be undertaken by hand until the machines can again be brought into service, necessitating the diversion of staff from their own proper duties.

13. Nor is it only the machinery which is overworked; we are informed that it is not uncommon, when urgent requisitions have to be dealt with, for employees of the Press to be required to work as much as 16 hours a day in order to cope with it, and that without payment of overtime. It is clear that Government is laying itself open to a grave indictment by demanding from the Press an output far in excess of that for which, assuming fair conditions of labour, it has been prepared to make the necessary financial provision.

14. In spite, moreover, of the fact that both men and machines are driven to the maximum, the Press is quite unable to keep its work up

to date. This is particularly serious in the case of the Government Gazettes, which have to be printed in all three official languages. The amount of work involved in the printing of the Gazette is enormous; including its various Supplements, the English edition ran to 3,670 pages in 1936, 3,321 pages in 1937, 3,642 pages in 1938 and 3,517 pages in 1939. As all four linotype machines now installed are bilingual, two setting in English and Arabic and two in English and Hebrew, it is just possible to produce the English edition punctually, but it is quite impracticable to obtain punctuality in the case of the Arabic and Hebrew editions, which appear from three to seven weeks after the English edition, according to the amount of other urgent work with which the Press is being called upon to deal at the time.

15. In this respect, Government can hardly be regarded as discharging its statutory responsibilities. We have heard of complaints from lawyers that issues have been decided in the Courts on the basis of laws which had not yet been published in the language in which the issue was tried or which any of the parties thereto could understand. We have further been informed that in some instances a law has been enacted and published in the English edition and that a week or so thereafter a draft of the same law has been published in Arabic and Hebrew calling for comment or criticism prior to enactment. Were the legality of such legislation contested, Government would show to little advantage in the Courts, whatever might be the decision. It need hardly be said that, in such circumstances, non-urgent work has often to be almost indefinitely delayed with the result that many reports cannot be issued until so late that they have already ceased to be of interest by the date of publication.

16. The organization of the Government Press was examined by Mr. Cudmore, Government Statistician, in April, 1937. Mr. Cudmore drew attention to the inadequacy both of the staff employed and of the machinery installed, pointing out that the best constructed and most efficiently managed printing plant in the world will not turn out the printed matter which is its reason for existence unless it has an adequate equipment of type-setting machines and printing presses. He held that, in the Government Press, the machinery of production, and in particular the type-setting equipment, was entirely inadequate to cope with the volume of work which was being required of it, and recommended that Government should add to the existing plant 4 linotype machines, 3 rotary presses, a folding machine, a thread book sewing machine and certain additional composing room equipment. He estimated the cost of machines and equipment at £P.13,750, the cost of the additional staff necessary to man them at £P.2,592 and the cost of the increased power required at £P.350. This recommendation was made three years ago but no action has yet been taken upon it although, in the meantime,

there has been a large and steady increase in the volume of work coming to the Press. Since the outbreak of war the position has worsened still further. There have been constant and urgent demands for printing in connection with the various regulations issued and of forms designed to secure the control of persons, material, foodstuffs and the like. Where pre-existing forms are used for these purposes, the number required has been enormously increased. The Government Printer has informed us of one case where the normal annual supply of a particular form was exhausted within six weeks and a demand for reprinting preferred. The work required by the Police Department in this respect has more than doubled since 1937.

17. Apart from the entirely unsatisfactory nature of the present arrangements, they are uneconomical in the extreme. Very large quantities of work, including the whole of the work of the Posts and Telegraphs Department, and most of that required in connection with the administration of the Rural Property Tax Ordinance, have to be put out to contract. On such work Government is not only paying unnecessarily the profits of the private printer, which may be from 15 to 20 per cent., but also that portion of the cost of printing which represents overhead charges, such as management, rent, light, etc., since there would be no increase in Government's expenditure under these heads were the Government Press equipped to deal with the work. The Government Printer informs us that, with the additional equipment proposed by Mr. Cudmore, he would be able to undertake additional work which would save annually from £P.4,000 to £P.5,000 of the amount now spent on contract work.

18. We consider that there is overwhelming justification for the purchase of this equipment with the least possible delay. Its cost has increased since Mr. Cudmore's report was written and, at the present prices ruling for machinery and freight, will probably be about £P.16,500. We also recommend that the additional staff required to operate it be engaged; in this respect the figure given in 1935 still holds good.

CHAPTER XV.

CONCLUSION.

Throughout the preceding chapters, the figures given as representing the cost of works and activities are based on pre-war estimates. No other course was open to us; it would obviously have been useless to attempt any revision at this stage. But this fact will require to be borne in mind when the question of implementing our proposals becomes a live issue.

2. In the statement appended to this Report we summarize the expenditure involved in our recommendations. The total figures are as follows :—

	£P.
Capital expenditure	9,038,569
Initial recurrent expenditure per annum	643,146
Residual recurrent expenditure per annum after ten years	577,816
Recurrent revenue or saving per annum	78,259

3. Dealing first with capital expenditure, the amount includes a number of municipal and other schemes, extraneous to the direct activities of the Central Government, which, over a term of years, are expected to be self-supporting and which could appropriately be included in a loan schedule. If a loan were raised to supply the capital for these schemes, it would be necessary to provide funds during the development period of certain of them; such funds might be made available as advances from the accumulated surplus funds in the general revenue balance account of Government.

4. The schemes referred to account for a total sum of £P.3,474,000 as follows :—

	£P.
Capital of Government Land Bank	1,000,000
Capital for formation of Improvement Trusts	1,000,000
Haifa Water Supply	600,000
Haifa Drainage Scheme	80,000
Tel Aviv Drainage Scheme	666,000
Jerusalem Sewerage Scheme	75,000
Hebron Water Supply	10,000
Gaza Water Supply and Drainage Scheme	23,000
Majdal Drainage Scheme	20,000
TOTAL :	£P.3,474,000

5. After making provision for these items, the net amount required for other capital works would be £P.5,564,569 of which £P.100,000 is available from surplus balances, having been earmarked to meet the cost of arrears of railway renewals which are included in the programme which we have submitted. The balance otherwise to be met amounts thus to £P.5,464,569.

6. The following schemes amounting to £P.1,578,464 could also appropriately be financed from a loan :—

	£P.
Replacement of hirings of educational buildings in towns	212,264
Extension of Haifa Harbour	659,000
Tuberculosis Service	103,200
Posts and Telegraphs :	
Replacement of hirings	120,000
Trunk Telephone System	207,000
Preservation of Mount of Olives	177,000
Jubilee Parks	100,000
TOTAL :	<u>£P.1,578,464</u>

7. The annual cost of a loan of this amount, calculated at 5 per cent., would be £P.78,923 from which may be deducted the recurrent revenue of £P.19,670 anticipated from the first four schemes. Further, it is expected that the scheme for the extension of Haifa harbour will result in land reclamation valued at £P.300,000 which on a 5 per cent. basis would give a return of £P.15,000 per annum, while the extension of the trunk telephone system, estimated to cost £P.207,000, should be self-supporting and yield an annual return of £P.10,350. The net annual cost of the schemes set out in the preceding paragraph should thus amount to approximately £P.33,903.

8. If the loans referred to in the preceding paragraphs were raised and the cost of arrears of railway renewals was defrayed from surplus balances, the balance of the capital expenditure to be met would amount to £P.3,886,105. As the basic budget of Palestine contains an item for Public Works Extraordinary which may be taken as amounting to between £P.350,000 and £P.400,000 a year, the balance of £P.3,886,105 might reasonably be expected to be met from this source over a ten years' period.

9. Coming now to recurrent expenditure, the amount required is £P.643,146 less the balance of additional revenue and savings amounting to £P.58,589, a net annual increase of £P.584,557. From this amount

may, however, be deducted £P.9,530 per annum required for research (on the assumption that this will be met from the special grant to be made available from the Colonial Development Fund for the purpose) and £P.27,500, by which we think that the annual sum stated to be required for land settlement can be reduced if a system more akin to that in force in Trans-Jordan is introduced in Palestine. The net annual excess demand is thus about £P.547,527 to which must be added the annual charge of £P.33,903 referred to in paragraph 7 above.

10. Assuming that the loans referred to in paragraphs 4 and 6 are raised, the Government of Palestine requires, in order to implement our recommendations, additional funds to the extent of £P.581,430 a year. Assuming a reasonable measure of assistance from the Colonial Development Fund we do not consider that, in normal circumstances, it would have been beyond the power of Palestine to produce the balance.

11. It was our intention, when we began our inquiry, to conclude our report with a review of the finances of the Government of Palestine and to indicate the sources from which we then anticipated that these additional funds could be found. We think, however, that it will be generally agreed that, in present circumstances, no forecast of this nature would be of the slightest value. He would be an unwise prophet indeed who attempted today to forecast the revenue or expenditure of any country after the conclusion of the war. In Palestine the position is possibly more difficult than elsewhere. The Mediterranean is closed, the citrus industry, on which Palestine depends so largely, is in serious distress, former markets are no longer available and imports both of capital and of goods are severely restricted. Only time can show when and to what extent recovery will take place. In the meantime, the cost of police and of other security services overshadows the remaining items of Palestine's budget and the deficit thus created is met only by large grants-in-aid from His Majesty's Government. So long as this position continues, it would be useless to discuss the possibilities of Palestine being able, at some future date, to produce the considerable excess revenue which would be required for financing the programme which we have proposed.

12. We therefore feel that we have discharged the duty laid upon us, in so far as is possible at present, by preparing a programme of development and leaving for future discussion and decision, in the light of the circumstances then obtaining, the question of how this programme is to be financed. We have made no attempt to arrange our proposals in order of urgency; there is no logical criterion for adjudication whether a scheme to promote the health of the community should or should not take precedence over one designed to augment its deficient food-supply, or where, in relation to either, would stand a scheme for the improvement of obsolete and unsatisfactory conditions of labour. As stated in

the first chapter of this Report, we have attempted to view the needs of Palestine as a whole and have recommended nothing which we do not consider necessary to the ordered progress of the country. Unless Government can obtain, whether from its own resources or by means of assistance from elsewhere, the funds necessary for the financing of a co-ordinated scheme of development touching all branches of its activities, we see no alternative to a continuance of something akin to the present practice under which each item of development is regarded as a separate entity.

ACKNOWLEDGEMENT.

13. In conclusion, we desire to place on record our appreciation of the services rendered to our Committee by Mr. V. N. Levi, Senior Assistant Treasurer, who has discharged his duties as Secretary (in addition to his ordinary duties) with marked ability and success. We are indebted to him both for the promptitude with which he has complied with the many demands which we have made upon him and for placing at our disposal his almost encyclopaedic knowledge of the past financial history of Palestine.

D. G. HARRIS.

M. BAILEY.

G. WALSH.

A. W. L. SAVAGE.

V. N. LEVI,
Secretary.

2nd October, 1940.

I T E M	EXPENDITURE										REMARKS		
	Capital			Recurrent				Revenue or Saving		Reference			
	Initial		Residual		Amount	Total	Amount	Total	Amount	Total		Chap.	Paras.
	Amount	Total	Amount	Total									
Brought forward	£P.	25,635	£P.	65,106	£P.	59,300	£P.	2,500					
IRRIGATION													
Reorganization of Irrigation Service	—												
Huleh Reclamation Scheme	235,000		16,500	—	10,500					III	12-14	Receipts should cover recurrent expenses	
Beisan Irrigation Project	100,000		—	—	—					III	28	do	
Wadi Fari'a Project	100,000		—	—	—					III	29	do	
Na'amein Drainage Project	55,000		—	—	—					III	36	Receipts should cover recurrent expenses	
Other Projects	400,000		—	—	—					III	25-27, 30, 32, 35, 37, 34	£P. 60,000 should be realised from sale of Government land reclaimed	
Hydrographic Survey	100,000	990,000	—	16,500	—	10,500	—	—	—	III		Receipts should cover recurrent expenses	
LAND													
Revision of Land Code	6,500		—	—	—					IV	4-6	Annual expenditure may be susceptible of reduction to £P. 60,000	
Acceleration of Land Settlement	—	6,500	87,500	87,500	—	—	30,000	30,000		IV	7-15		
Carried forward		1,022,135	169,106	69,800				32,500					

I T E M	EXPENDITURE										Revenue or Saving		Reference		REMARKS
	Capital		Recurrent				Residual		Amount	Total	Chap.	Paras.	Total	£P.	
	Amount	Total	Initial		Residual		£P.	Total							
			£P.	£P.	£P.	£P.									
Brought forward	—	1,022,135	—	169,106	—	69,800	—	—	32,500	V	19	—	—	Additional over estimates for 1940-41	
FORESTS Reorganization of Forest Department	—	—	15,000	—	20,000	—	—	—	—	V	20	—	—		
Construction of Forest Stations	11,000	—	—	15,000	—	20,000	—	—	—	V	20	—	—	No residual expenditure pre-suming development to be completed in ten years	
Forest Development	120,000	131,000	—	—	—	—	—	—	—	—	—	—	—		
EDUCATION															
Replacement of hirings in towns	212,264	—	—	—	—	—	—	—	6,180	VI	7-8	—	—		
Replacement of State Domain buildings in towns	54,375	—	—	—	—	—	—	—	—	VI	9	—	—		
Extension of town schools	612,000	175,200	175,200	—	175,200	—	—	—	4,188	VI	12-15	—	—		
Boarding hostels	54,960	9,552	9,552	—	9,552	—	—	—	3,600	VI	16-18	—	—		
Completion of existing village schools	7,260	9,080	9,080	—	—	—	—	—	—	VI	21	—	—		
Extension of village schools	23,760	32,400	32,400	—	—	—	—	—	—	VI	22	—	—		
Farm Schools	40,884	11,568	11,568	—	—	—	—	—	—	VI	23-24	—	—		
Training of rural teachers	—	600	600	—	—	—	—	—	—	VI	25	—	—		
Administration, etc.	—	4,369	4,369	—	—	—	—	—	—	VI	26-27	—	—		
Arabic text-books	4,976	1,244	1,244	—	—	—	—	—	—	VI	28	—	—		
Government Arab College	25,450	2,150	2,150	—	—	—	—	—	—	VI	29-32	—	—		
Women's Training College	69,100	2,250	2,250	—	—	—	—	—	1,032	VI	33-34	—	—		
Jewish Public School System	295,485	1,400,514	66,426	314,839	66,426	314,839	—	—	2,425	VI	35	—	—		
Carried forward	—	2,553,649	—	498,945	—	404,639	—	—	49,925	—	—	—	—		

I T E M	E X P E N D I T U R E										REMARKS	
	Capital		Recurrent				Revenue or Saving		Reference			
	Amount	Total	Initial		Residual		Amount	Total	Chap.	Paras.		
			Amount	Total	Amount	Total						
£P.	£P.	£P.	£P.	£P.	£P.	£P.	£P.					
Brought forward	260,450	5,160,199	11,115	583,049	31,305	502,189	2,400	58,810				
COMMUNICATIONS (Contd.)												
Haifa Harbour Extension of Haifa Harbour	659,000		—		—		5,000			XI	26-35	Land valued at £P. 300,000 to be reclaimed
Posts and Telegraphs Extension of Rural Facili- ties	—		7,500		2,500		—			XI	37-40	
Buildings Extension of Trunk Tele- phone System	120,000		—		—		5,490			XI	41-45	
207,000			—		—		—			XI	46-52	Self-supporting
Roads	1,000,000		—		—		—			XI	53-56	
Civil Aviation	—		—		—		—			XI	58-61	
Lydda Aerodrome	13,643		—		—		—			XI	62-64	
Haifa Aerodrome	23,758		—		—		—			XI	65	
Tiberias Marine Airport	—	2,283,851	860	19,475	1,000	34,805	—	12,890				
MUNICIPAL SCHEMES												
Haifa Water Supply	600,000		—		—		—			XII	2-7	Self-supporting
Haifa Drainage Scheme	80,000		—		—		—			XII	8-15	do
Carried forward	680,000	7,444,050	—	602,524	—	536,994	—	71,700				

I T E M	EXPENDITURE											Revenue or Saving		Reference		REMARKS	
	Capital		Initial				Recurrent				Residual						Chap.
	Amount	Total	Amount	Total	Amount	Total	Amount	Total	Amount	Total	Amount	Total					
	£P.	£P.	£P.	£P.	£P.	£P.	£P.	£P.	£P.	£P.	£P.	£P.	£P.	£P.			
Brought forward		8,958,069		620,204							554,874		71,700				
SERVICE DEPARTMENTS																	
Public Works Department																	
Reorganization of establishment	—		20,000				20,000								XIV	5	
Removal of P.W.D. Stores	8,000														XIV	6-7	
Removal of P.W.D. Workshops	18,000													962	XIV	8-9	Allowing £P. 10,000 for land.
Removal of P.W.D. Yards	38,000													1,097	XIV	10	
Government Press	16,500	80,500	2,942	22,942	2,942	22,942	2,942	22,942	4,500	6,559	22,942	4,500	6,559	XIV	16-18		
TOTAL		9,038,569		643,146							577,816		78,259				

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