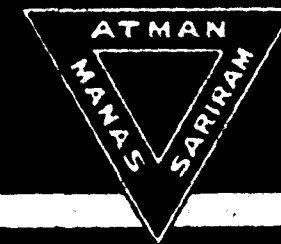


VAYAM

A Quarterly Journal of Physical Education.

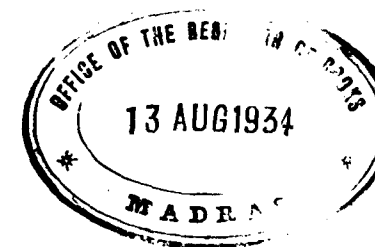


AUGUST 1934

The Economic Survey of Trivellore

The Leprosy Survey of Saidapet

32
MY m 211, N 29V
N 34
16-24-38



VYAYAM

ISSUED FEBRUARY, MAY, AUGUST AND NOVEMBER

VOL. VI.	AUGUST 1934.	NO. I.
----------	--------------	--------

TABLE OF CONTENTS.

EDITORIAL.

ECONOMIC SURVEY OF TRIVELLORE—By P. J. Thomas.

THE REPORT OF THE SKIN AND LEPROSY RELIEF ASSOCIATION, SAIDAPET.

COIMBATORE Y. M. C. A. PHYSICAL EDUCATION SUMMER SCHOOL, 1934—By
D. Santiago.

“LIFE IS A SERIES OF COMMENCEMENTS”—By J. Solomon.

COACHING IN SPORTS AND BOXING.

Management:

A Quarterly Magazine published jointly by the National Y. M. C. A.
College of Physical Education, and its “Old Boys” Association.
Y. M. C. A. College of Physical Education, Saidapet, Madras.

Editorial Board:

H. C. BUCK, Editor-in-Chief.

HENRY LALL

K. PATHAM

J. N. GOSH

S. C. BHATTACHARJEE

G. F. ANDREWS

P. M. JOSEPH

S. NARAYANAN

SHIRALKAR

N. K. MIA, Business Manager,
Saidapet, Madras.

Contributions and original articles on subjects pertaining to Physical
Education, Health or Sports, are requested by the Editor.

Advertising: For space, rates and other particulars please address the
Business Manager.

Subscription: Rs. 2-0-0 per annum post paid. Single copy Annas 12.

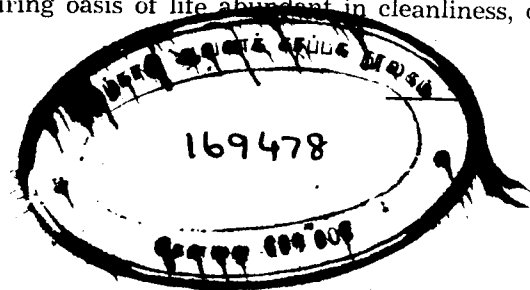
Editorial

This issue of *Vyayam* is a departure from the usual, in that the two leading articles are not directly concerned with Physical Education. We consider them, however, two of the most important we have been privileged to publish and believe that their bearing on educational policy should be profound.

Their importance to the Physical Director is immediately apparent. If we are concerned merely with playing games, winning trophies and arranging tamashas, these two pictures of economic and bodily distress will not influence our routine of work. If, however, we visualize Physical Education as an avenue we may mark out by which others are led to more abundant living, then these two surveys will be important guide posts.

Our definition of abundant living? It may mean to some honours in an examination, jewels for women-folk, property paid for. To us let it be confined to the essentials of living. As Physical Directors, we must be pioneers for many years to come in pointing out, and then securing the essentials. The Physical Director who removes rubbish from a maidan and converts it into a recreation ground; arranges for economical and efficient disposal of rubbish; agitates patiently and without ceasing until adequate latrine accommodation is provided and maintained; provides safe drinking water for his institution; insists upon intelligent medical examination of students yearly, with remedial follow up attention; the Physical Director, who faithfully concentrates upon any or all of these and perseveres until successful, is giving his students an opportunity to live more abundantly.

We cannot hope to set right immediately economic maladjustments. Nor can we expect to remove the scourge of leprosy within a few short years. But we must, if we hope to be worthy of our profession, face the apparently overwhelming difficulties, and ever conscious of the larger problems about us, set ourselves the inspiring task of analysing all of the problems of healthy living which daily face us in our work. And then refusing to wait until there is more money provided in the budget, or more staff on the rolls, attack our problems with patience and perseverance, "beginning where we are" and pushing on until in spite of the general situation, our own institution is an inspiring oasis of life abundant in cleanliness, order, health and vigour.



56.
MY m 211, N 298
N34

Economic Survey of Trivellore

By

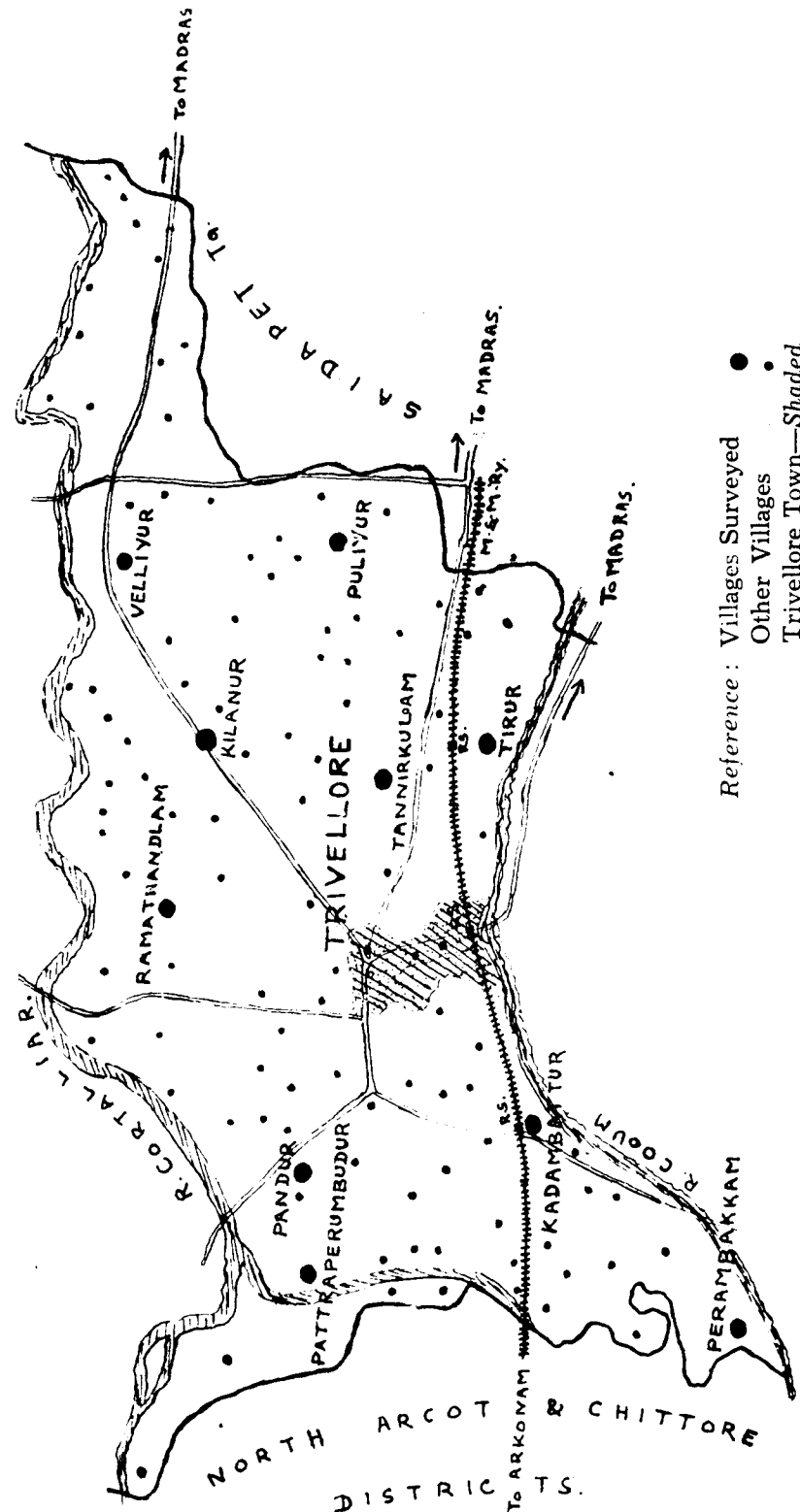
P. J. THOMAS, M.A., B.LITT., PH.D.,

University Professor of Economics, Madras.

[*Vyayam* wishes to express its appreciation of this valuable summary of a yet unpublished report. It challenges us to revalue our attempts to provide opportunities for healthier, happier living.]

During the last thirty years, considerable attention has been given by Government and by non-official bodies to the advancement of education and public health in the rural parts of the country, but the results have not been very encouraging. Literacy is growing at a snail's pace; mortality from preventable diseases is appalling; and the villagers still eke out their existence in the midst of dirt and disease. One conclusion that has emerged from the experience of half a century is that no real advance can be made in any direction without improving the economic condition of the people. You may open schools; you may preach sanitary improvements; you may broadcast ideas of better living; but none of these advantages will be availed of unless the income and the standard of living of the people improve. Poverty is the central fact of Indian life—poverty, economic, intellectual and physical; and without tackling this pivotal problem, all efforts at advancement must be ineffective. Educational reforms and public health propaganda are of little avail so long as these conditions continue. Indeed the advance must be all-round: poverty in all its phases must be simultaneously attacked; but as physical and intellectual (even spiritual) poverty cannot be effectively tackled without a substantial reduction in economic poverty, the main effort at the first stages must be economic. Somehow or other, the income and thereby the standard of living of the masses must be raised, and then the ignorance and ill-health of the villager can be more effectively tackled. Such is the conclusion which successive Royal Commissions and departmental enquiries have arrived at and such is the conviction behind the Trivellore Rural Development Scheme conducted under the auspices of the Government of Madras.

The credit for initiating the Trivellore Scheme belongs to Lt. Col. J.R.D., Webb, O.B.E., I.M.S., till lately Director of Public Health, Madras. Being convinced that any advance in public health must be part of a comprehensive programme of rural development, and that such a programme must be initiated in a small area for purposes of experiment and demonstration, he selected a convenient area in the Chingelput District, and prepared a rural development scheme, with the help of all the Departments concerned with rural welfare, in particular Agriculture, Education, Industries, Veterinary and Co-operation. It was realized from the beginning that the prime essential for the formulation of a rural development scheme must be a comprehensive en-



quiry into the economic conditions of the locality, in order that the true state of things may be known. This work fell to the share of the University Professor of Economics and under his direction, Mr. G. Gopal Rao, M.A., formerly University Research Student, carried out a socio economic survey of the region, with the help of the workers sent by the various Departments.

The area selected for the development scheme lies in the Trivellore Taluk, about 30 miles west of Madras. It covers an area of 129 square miles and has a population of 91,000, living in 114 villages. It is mainly a paddy growing area, with hardly any of the principal money crops of the Presidency. The land is partly wet and partly dry, but is generally of middling or poor fertility. It contains a large proportion of proprietary villages, both zamin and inam; and a great deal of land in the area belongs to absentee owners residing in towns, mostly in Madras. The villages are generally small, more than half the population living in villages of less than 1,000 inhabitants. Kammas form the bulk of the agricultural class, and labour is supplied by the depressed classes who form a third of the population.

Village surveys have been carried out in Madras, before, but those surveys had not any immediate practical aim as the one before us. They were mostly descriptive accounts of rural life and did not attempt to measure social phenomena with any great degree of accuracy. Indeed elaborate surveys have been made in the Punjab, but those too were not undertaken with any practical aim immediately in view. Further, conditions in Madras differ fundamentally from those in the Punjab. We had therefore to draw up a scheme of our own, to suit local requirements; and in several respects new methods had to be adopted. In the Punjab, single villages were surveyed each by an investigator resident in the village for at least a year; we have had to survey an area comprising 114 villages in a limited period of time and with much less resources at our command.

The objects of the survey were (a) to get an accurate picture of the existing conditions, in order that we may gauge the nature and scope of the improvements required, (b) to give some base line for estimating the results of development activities after any definite period and (c) to acquaint the staff with all the phases of the ryot's life and to open their eyes to their real needs. With a view to meeting this purpose, it was found advisable to carry out (i) a general survey of the whole region, (ii) an intensive survey of a few selected villages, (iii) special enquiries into specific problems like marketing, indebtedness, etc., and (iv) technical surveys of the state of public health, education, cattle, industries, soils and so forth.

It was decided to take ten villages for detailed study and they were selected from different parts of the region. We did not think that random sampling would meet our purpose in such a heterogenous economic environment. The villages were selected after taking into account the nature of the soil, the source of water-supply, land tenure, type of cultivation and other relevant circumstances. It would have been best to appoint an investigator for each of these villages, but as the funds at our disposal did not permit it, the

services of the workers sent by the various Government Departments to assist in the scheme were utilized in the survey work. Some of them were University graduates and men of considerable experience. Detailed questionnaires and tables were given to them and they entered the particulars about each of the families after personal enquiry at the houses. The information thus collected was checked with the help of the village officers (who are men of the place) and other prominent men of the locality, and Mr. Gopal Rao frequently went round the villages verifying the entries. Complete accuracy in such statistics is nearly impossible, but as was admitted by several experienced persons, the degree of accuracy we were able to attain is, at any rate, ample for the practical scheme of reconstruction that we have in view. We were fortunate in having, as Collector, a very experienced and sympathetic officer, Mr. T. G. Rutherford, I.C.S. The officers of the Public Health Department and the representatives of the Rockefeller Foundation were ever ready to help. Among those who offered encouragement and guidance are Mr. D. H. Robertson, the well-known Cambridge economist, who was lately in India to advise the Government of India on the economic census and Dr. Jamieson, Director of the London School of Tropical Medicine and Hygiene. The Report of the survey is now getting ready, and it is hoped to publish it shortly.

It is no easy task to summarize a report of this kind. What is proposed to do here is to glean some of the salient features of the area and to barely refer to some of the conclusions arrived at.

OCCUPATIONAL DISTRIBUTION.

Perhaps the most noteworthy economic feature of the area is the extreme dependence of the population on agriculture. Out of a total of about 18,000 families in the tract, 3,000 families, or about 16% were taken for detailed study. Of the families studied, 76.5% are wholly dependent on agriculture, 7% combine agricultural with non-agricultural occupations, and only 16% follow occupations other than agriculture. If we exclude from this last category the village artisan classes like barbers, dhobis, potters, and carpenters, who get a share of the village produce and therefore depend on agriculture, we have only a bare 10% of the population depending on such occupations as trade, carting, handloom-weaving, pig-keeping, fishing, beedi-making basket-making and non-agricultural labour. The following table will bring this out, in regard to 8 of the villages surveyed:—

Families Classified According to Occupation.

<i>Occupation.</i>	<i>Total No. of families.</i>	<i>Percentage.</i>
1. Solely depending on agriculture : owners, tenants & labourers.	1942	76.5
2. Partly dependent on agriculture.	174	7.0
3. Non-agricultural.	412	16.5
	2528	100.0

In spite of such dependence on agriculture—and a rather poor agriculture, as will be clear presently—it is surprising to find that the density to the square mile is 708 persons including the town of Trivellore, and 641 excluding the town. There are 153 persons for every hundred acres of occupied land, and 178 persons for every hundred acres of cultivated land. “The limit has now been reached,” observed the Census Commissioner even in 1921 about Chingleput, and subsequently the pressure has further increased and there is little room for expansion within the area. Indeed there is much fallow land lying idle, as much as 30 to 40% in certain parts but with an average rainfall of 45 inches per annum, there is little chance of these lands coming under tillage. Either irrigation facilities must largely increase or the yield from land must be made to go up; or other occupations must arise; or emigration must be resorted to. Perhaps all these must be attempted simultaneously, if a forward move is to be made.

HOLDINGS.

The size of the holding has been going on diminishing, without any improvement in the method of tillage. As many as 688 out of a total of 945 owner's holdings (taken from 5 villages) are below 5 acres, and 220 below one acre. Cultivator's holdings are comparatively better, only 210 out of 959 being below one acre, and as many as 506 being between 1 and 5 acres. The average owner's holding is about 6.8 acres, assessed to a land revenue of Rs. 21, but the average cultivator has only 5.67 acres, half of it being wet land and half dry.

The following table will bring out the size of holdings, both of owners and of cultivators.* (Statistics of five villages).

<i>Size of holdings.</i>	<i>Owner's holdings.</i>		<i>Cultivator's holdings.</i>	
	<i>Number.</i>	<i>Percentage.</i>	<i>Number.</i>	<i>Percentage.</i>
1 acre and less	220	23.3	210	21.9
1 — 5 acres.	468	49.5	506	52.7
5 — 10 „	97	10.3	110	11.5
10 — 30 „	118	12.5	101	10.5
30 — 50 „	22	2.3	16	1.7
over 50 „	20	2.1	16	1.7
Total.	945	100.0	959	100.0

Average holding : 6.8 acres. Assessment, Rs. 21.

Average extent of cultivator's holdings : 5.67 acres.

Subdivision and fragmentation of owner's holdings have been going on owing to the Hindu Law of Inheritance, but the size of cultivator's holdings

has not diminished correspondingly, as those who own small holdings have been taking other lands on lease. Thus, while there are only 49.5% owner's holdings between 1 and 5 acres, the number of cultivator's holdings of the same class is slightly larger, viz., 52.7%. This is a factor counteracting the influence of subdivision, and is not always taken into account when holdings are studied. Law and custom favour the division of holdings into minute fragments but the economic instinct of man urges him to aim at a minimum economic holding, and this is helped by the absenteeism and idleness among the larger owners.

Leasing is therefore common and a large proportion (30 to 40%) of the lands in some of the villages is cultivated on lease. The landlord and tenant usually share the produce equally between them, the landlord paying the kist and the tenant taking the straw. Lease deeds are rarely registered, but rackrenting is rare.

THE NATURE OF TILLAGE.

The chief crop grown is paddy, and next come ragi and other dry grains. There is hardly any of the well-known commercial crops in the area. On most lands, only a single crop is raised, owing to the dearth of water and the fickleness of rainfall. Crop failures are frequent, but absolute failures are rare.

The methods of cultivation are traditional, and not many of the improved methods have been introduced. A few iron ploughs are used, but they are not viewed with favour by the ryots, as it is thought that they turn the soil a little too much. Sowing is done in August or September but in the case of dry crops, sowing is done in June or July. A second crop may be raised in December or January, weather permitting; but only a fifth of the total cropped area permits of two crops. The first crop is generally raised under semi-dry conditions and do not require systematic irrigation during the sowing season, but the second crop is raised invariably under puddled conditions. In lands which cannot grow two paddy crops, it is customary to raise a "dry crop" first and to sow paddy as second crop. Some of the dry land may yield much more under commercial crops, if irrigated from wells. Manuring is also on traditional lines, mostly farm-yard manure being used and a smaller proportion of green leaf. Farm-yard manure is not carefully preserved, but lately the Department of Agriculture has introduced manure pits in the villages. Here and there a few enterprising ryots use chemical manure, but somehow they subsequently give it up. Shaw Wallace & Co., has a distributing centre at Trivellore, where they sell sulphate of ammonia and other manures.

LIVE STOCK

The cattle of the area are poor and ill-nourished, owing to careless breeding, poor feeding, and bad housing. The plough bulls cost Rs. 30 to

Rs. 50 a pair. The waste involved will be clear from the fact that between 20 and 30 per cent. of the cattle of the villagers are kept for the supply of dung manure and not for farm work at all! Such weak cattle cannot resist disease, and epizootics often break out, causing debt and distress to the peasantry. Not even one out of every twenty cows is in milk at any one time, and in villages with 300 or 400 cows, it is hardly possible to get 20 measures of milk a day! A large number of useless cattle is a great burden to the land.

The following table brings out the main results of the cattle and live-stock census:—(Statistics for 10 villages).

Kinds	Total Numbers
Bulls and Bullocks	3073
Cows	2305
Young Stock	1475
He Buffaloes	709
She Buffaloes	771
Young Stock	515
Sheep	3736
Goats	2017
Horses and Ponies	11
Mules and Donkeys	36

LABOUR

Agricultural labour is mostly supplied by the 'depressed' classes, who form nearly a third of the population. There are two classes of labourers (1) Padiyals and (2) day-labourers. A Padiyal (or Pannayal) is a labourer who has entered into a contract with a cultivator to work for him, and to work for him only, the whole year round, receiving in return a fixed monthly wage in paddy, a heap of grain at the threshing floor, some meals and occasional presents of cloth. Usually an advance of money, say Rs. 30 to Rs. 50, is taken by the Padiyal, and this often remains a debt for life and is even handed down to children. The terms of the contract vary from place to place, but in the area under survey the Padiyal gets a monthly wage of between 32 and 48 measures of paddy, about 100 measures of paddy at the threshing floor, a dhoti at Pongal, and generally a meal at midday. This is the traditional system of farm labour in S. India, and is still in full swing in many parts of the country.

Other labourers are engaged for the day and get their wages daily. Not only depressed classes and landless men, but even those who own some land, supplement their income by working as labourers in the neighbourhood. The hours of work and wages vary according to the nature of work, the season, etc. Ploughing begins at 7 a.m. and stops at 11 a.m.; but other kinds of work go on for the whole day, usually from 8 a.m. to 5 p.m. Wages are generally

paid in kind, and varies from 2 to 2½ Madras measures of paddy or 1½ measures of ragi per day, and in addition a light meal (kanji) is given at mid-day. Women get slightly less wages. In terms of money, these wages work out at 1½ to 2 annas per day. The annual income of a labourer's family may be anything between Rs. 30 to Rs. 50, but employment is obtained for only 200 to 300 days in the year. The padiyal is slightly better off, but he is under a contract which may easily degenerate into an indentured serfdom. As a class the labouring population is in a bad condition; when they are sick or unemployed, the condition is deplorable. A large number of these people are in a state of semi-starvation.

COST OF CULTIVATION

The actual expenses of cultivation will depend on a variety of factors—the kind of crop raised, the method of cultivation, the nature of the soil, rainfall, and even the caste of the cultivator. There are various difficulties in estimating cost. A small-holder cultivating his holding with the labour of himself and family may be spending little, while a cultivator who hires labour for all kinds of work will have to pay for many items for which the other does not pay. Assuming that all the labour is paid for, the expenses of cultivation of rice under semi-dry conditions (Pulidikal) may vary from Rs. 14 to Rs. 28 per acre, and under puddled conditions (sedai) from Rs. 24 to Rs. 45. Expenses for ploughing, sowing, baling water, transplanting, weeding, harvesting and threshing, the cost of seeds and manure are included in the cost of cultivation. The cost of marketing is not included, because most of the produce (especially paddy) is sold to cartmen, who collect the produce in the village. The following table gives the costs of cultivation, and the yield valued at current prices, in the case of the principal crops:—

Expenses of Cultivation and Yield (Approximate Averages)

Crop	Expenses Rs.		Total yield Value Rs.		Net yield Value Rs.	
	Min.	Max.	Min.	Max.	Min.	Max.
1. Paddy						
(a) Pulidikal	15	28	28	45	14	28
(b) Sedai	24	45	40	75	24	35
2. Ragi	16	40	25	60	8	19
3. Cumbu	10	20	15	24	5	11
4. Groundnut	12	40	30	70	14	30
5. Gingelly	7	25	12	35	5	19

It may be seen from the above that the net income from paddy cultivation may be anything between Rs. 14 to Rs. 28 per acre and when a second

crop is raised, between Rs. 21 to Rs. 35 per acre. From this he has to pay a land revenue of Rs. 4 to Rs. 6, and interest on the capital invested on land.

Perhaps it would be easier to visualise the true conditions of the agricultural population of the area, if we analyse the economic results of a holding of about 6 acres which may be considered typical of this area. We shall take the case of a fairly hardworking Kamma ryot owning 6.09 acres of land worth about Rs. 900. Half of the land is wet and the other half dry. His family consists of 6 members, 3 adults and 3 children. The three adults (two men and a woman) work in the field. They own a cart, a pair of very good bullocks worth Rs. 200, and a pair of buffaloes worth Rs. 50. They cultivate all the land themselves and raise generally two crops on the land, employing outside labourers only for harvesting, weeding and other important operations. The following is his rough balance sheet for the year 1932-33:—

Crops.	Expenses.			Yield.	
	Extent cultivated Ac.	Labour and other charges. Rs.	Mamool or grain payments. Madras Measures.	Quantity. Madras Measures	Value * Rs.
1. Paddy (Semi-dry)	2 00	15- 3-0	68	1748 and 10 cart loads straw	85-0-0 10-0-0
2. Ragi	2 33	21-11-6	44	1324 and fodder 6 cart loads	75-0-0 6-0-0
3. Gingelly	same land	3- 4-6	..	192	31-8-4
4. Cumbu	0 76	2- 9-6	34	226	13-0-0
Total		42-12-6			220-8-4

* Calculated at the average wholesale selling price of produce during that year in the village, excluding deduction in col. 5, though the ryot did not actually sell all his produce.

	Rs.	A.	P.
The value of the total yield ..	220	8	4
<i>Deduct—</i>			
	Rs.	A.	P.
(i) Expenses of cultivation ..	42	12	6
(ii) Depreciation on cattle and feeding charges ..	61	0	0
Total ..	103	12	6
Net yield. ..	116	11	10

Thus the net yield of his holding comes to Rs. 116-11-10. From this he has to pay the land revenue (Rs. 12--13--0) and the interest on the capital invested on land. We have to remember that it is with borrowed money or grain that a good many ryots raise their crop and subsist during the months after cropping, and this is also a necessary charge on the year's produce. Nor should we lose sight of the fact that three adults work on the farm and if we deduct their wages also the 'net income' must be small indeed! As the Tamil proverb has it: "If the ryot counts the cost, even the ploughshare will be lost".

INCOME AND THE STANDARD OF LIVING

The following table of incomes has been drawn up from the details collected for all the families in the villages surveyed. The incomes have not been worked out on the same lines as those from industrial concerns; for various reasons, it is not possible to estimate the net income of cultivating ryots on strict business lines. For one thing, it is difficult to clearly distinguish the returns from labour, capital and enterprise; and for another, there are various items in the real income of the ryot which we cannot evaluate in terms of money, and yet must be taken into account in any scientific analysis of the economic condition of the present population. Nearly all the fuel, vegetables and other foodstuffs needed for the ryot's family comes from his or his neighbour's yard and are not paid for. These circumstances must be taken into account in drawing conclusions from the following statistics of income. At any rate, they cannot be used for accurate comparisons between urban and rural incomes; and not at all for international comparisons.

Total income	Percentage of families getting such incomes.
Upto Rs. 25	7.6
Rs. 25—Rs. 50	14.6
Rs. 50—Rs. 100	31.2
Rs. 100—Rs. 200	25.2
Rs. 200—Rs. 500	15.2
Rs. 500—Rs. 1,000	4.6
Rs. 1,000—Rs. 2,000	1.4
Over Rs. 2,000	0.2
Total	100.00
Average annual income per family in the area	Rs. 173
Average in the most prosperous village	Rs. 276
Average in the least prosperous village	Rs. 66

What can be the standard of living of a rural population with an annual *per capita* income of Rs. 35? We have collected about 250 detailed family budgets and the results of this enquiry will be fully dealt with in the report. The standard of living of the population is low, and by no means uniform as between the different castes. It varies both horizontally and vertically. There is a distinct caste standard traditionally ordained for the Brahmin, the Vellala and the Pariah, and even within these castes, the standard varies with the income and social position. Indeed 'caste' standards are now weakening, and the 'income' standard is now growing in importance.

Food forms 75 per cent. of the expenditure of an average family. The staple diet is rice for the better-off classes and ragi for the worse-off. The bulk of the population is non-vegetarian but only in name, seeing that not one in a hundred habitually consumes fish or meat and that most people consume meat only 4 or 5 times a year when goats or fowls are sacrificed on festive occasions. The expenditure on fuel and lighting varies from nothing to 5 per cent. or 10 per cent., the main item under this head being kerosene. Clothing makes up from 10 to 20 per cent. Cloths are bought at high prices in the villages, at prices not justified by the distance from towns. Gold jewellery are rare, and all the silver ornaments possessed by the average woman are worth only a rupee or two. Few houses have a watch or time-piece, and there are many villages without a single clock. The average house is a one-roomed thatched shed with mud walls, and only one house in fifty is tiled, and terraced houses are rare. The depressed classes are huddled together in hovels with hardly any drinking water close by. Wells are few and far between, and good drinking water is rare, and as for bathing, it is a luxury.

In spite of such low income, a good number of the people must have their drink and betel-nut, and must celebrate their marriages and other ceremonies with such festivities as are customary for their caste and rank irrespective of the size of their income. Marriage expenses are never below a year's

income for anybody and for the labouring classes, it is generally a life's burden. Such festivities are usually celebrated with borrowed funds and this involves them in debt.

INDEBTEDNESS

We have carried out an elaborate enquiry into the indebtedness of the region. Detailed questionnaires were issued, and the debt of every family in the villages studied have been investigated. The following points may suffice for this summary :—

Incidence of Indebtedness

	Velliyur.	Ramathandalam.	Kadambathur.	Pandur.	Puliyur.	Total.
Total No. of families ..	475	228	317	217	251	1488
No. of families in debt ..	326	134	148	139	184	931
Percentage ..	69	59	47	64	73	62
Debt per family .. Rs.	408	512	50	210	161	276
Debt per indebted family .. Rs.	595	871	109	350	220	432
Extent of land owned by the inhabitants in acres ..	2156	991	1591	404	614	5756
Average debt per acre of land .. Rs.	90	118	10	113	66	72
Total land Revenue assessment .. Rs.	6,208	1,835	5,893	1,694	2,306	17,936
Ratio between land revenue and debt ..	31	65	3	26	17	23
Total indebtedness .. Rs.	1,94,250	1,16,719	16,066	45,668	40,512	4,12,215
Total assets of the inhabitants .. Rs.	9,06,523	1,83,989	10,67,030	4,74,516	1,10,686	27,42,744

The total indebtedness of the villages surveyed is 23 times the total land revenue demand, and is at least 15 per cent. of the total assets. The debt *per capita* in Trivellore is nearly the same as that given for Madras Presidency (Rs. 50) by the Provincial Banking Committee. The interest charged for loans varies from 9 to 12 per cent. and in some cases it is as high as 24 per cent. Grain loans have to pay at least 25 per cent. Since the depression began, interest payments have fallen into arrears, and repayments are few. Nearly all the repayments during these last four years were made by parting with land and other property. It may be important to remember that most of the loans have been advanced by the thrifty ryots in the neighbourhood. This is an advantage in so far as foreclosure may not mean alienation to non-agricultural classes, but, those who know the land-hunger of the rural folk will not consider it altogether an advantage. A large proportion of those who

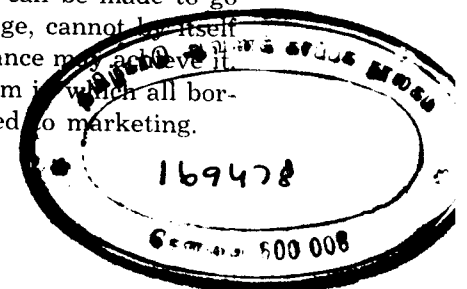
are in debt will have to part with their lands, unless prices improve very considerably in the near future. A scheme of debt conciliation may be helpful, provided it is accompanied by an improved system of rural credit. In the existing circumstances of India, the problem of rural indebtedness cannot be effectively tackled, unless we effect a thorough change in our rural economy. With a 'controlled' system of rural credit, and with a carefully devised system of production and marketing, it may be possible to bring rural indebtedness under check.

There are several other economic evils which keep the area poor and backward. Space does not permit of anything more than a mere enumeration of these. They are :—(1) the high cost of transport, which prevents the villagers from selling their produce at top prices and making their purchases at low prices, thus reducing their incomes and cutting down the purchasing power of their incomes ; (2) absentee landlordism, which drains away into towns a large slice of the incomes earned in the villages. Silted-up tanks, ruined temples, decaying houses and a starving peasantry are the usual features of the villages whose proprietors live away in towns ; (3) the adoption of new economic wants without a corresponding increase of income, and the consequent upsetting of the family budgets of rural folk.

Judging from various indications the trade depression has affected this region much less than those areas which specialise in commercial crops. A cereal growing region which produces what it consumes and consumes what it produces is comparatively immune to some of the worst evils of a trade depression. But even here, ryots find it hard to keep up their standard of living and pay their debts.

CONCLUSION.

Such, in brief, is the economic condition of the Trivellore Taluk. The central problem facing us in any scheme of rural uplift is how to increase the standard of living of the people, so that they may live healthier and happier lives. The standard of living cannot rise unless income is increased. If income is to increase, it must be either by the cultivation of more profitable crops, or by the more efficient cultivation of existing crops, and by more profitable marketing. In the existing circumstances, it is rather difficult to introduce new crops, or to increase the yield profitably. The possibility of increasing water-supply needs an expert enquiry. With the existing crops, and with a slight change in agricultural and marketing methods, income can be increased to a certain extent. The present methods are wasteful : there are wastes in the use of land, labour, and capital. By using land and labour more economically, by diminishing transport charges and by eliminating other wastes, the income from land can be increased, and by a slight change in the mode of purchasing goods and by reforming consumption, the income can be made to go a greater way than it does now. One family, or one village, cannot by itself effect this change ; a co-operative effort under proper guidance may achieve it. But it must be a reformed co-operative movement—a system in which all borrowing will be strictly controlled, and credit will be linked to marketing.



This effort is difficult to make ; it requires a powerful drive which only a bold Government can carry out. But if it is undertaken, the standard of living of the masses can be raised, and this would not only lead to the physical and moral regeneration of the rural folk, but would also bring about a great advance in trade and industry throughout the country. The majority of people in the villages surveyed consume hardly 6 yards of cloth and 2 pounds of sugar per annum. What will be the effect on Indian textile and sugar industries if an extra yard of cloth and an extra pound of sugar are consumed by the 250 million agricultural folk ? Who can estimate the effect on foreign trade and government finance of such an increase in consumption and production ?

It is not claimed that this economic survey has brought out anything new; its object has been to measure scientifically what we already know in a general way. But such accurate knowledge is essential for making our plans for reconstruction. It is dangerous to make plans on knowledge based on mere impressions. Further, we require a baseline for gauging the results of the experiment, and for measuring future improvements from time to time. The knowledge gathered is by no means perfect, but it is adequate for the purpose in view. Let us hope that this knowledge will be used by the authorities concerned in drawing up and carrying out a comprehensive programme of rural development, which may serve as a laboratory for economic experiment and a training ground for rural workers in the Presidency.

The Report of the Skin and Leprosy Relief Association, Saidapet

[The Editor, *Vyayam*, expresses his gratitude to the S. S. L. R. A. for permission to publish this valuable survey. The Y. M. C. A. College of Physical Education wishes to record its appreciation for the opportunity to share in this effort.]

The Association was constituted on July 15, 1933, with an influential committee, its purpose being to study the problem of leprosy in Saidapet, and then to take action as required. The committee was divided into two sections, an Executive Committee, and a General Purposes Committee. The latter has met regularly to plan and consolidate the work (Appendix A).

The Programme of the Association consists of :—

1. Propaganda. 2. Survey. 3. Remedial Measures.

Propaganda :—Has consisted of open air lantern lectures and of one cinema show at which the film on Leprosy produced by the Department of Public Health, Madras, was exhibited and much appreciated. Unfortunately in spite of many requests for further showings, it has not been possible to arrange them, as a cinema projector could not be secured. Much delay has also been experienced with defective lanterns, during lantern shows.

Special leaflets in the vernacular, explaining the scope of the Association's work have been printed, and widely used, as well as propaganda material kindly supplied by the Department of Public Health and the Surgeon-General, Madras. The Leprosy Clinic and the follow up work, have provided valuable opportunities for explanation and advice. Much more propaganda must be carried on to acquaint the public with the gravity of the problem, and the means available for treatment.

The Survey :—The survey has been divided into 3 parts :—

1. The Random Survey. 2. The School Survey. 3. The House to House Survey.

The Random Survey :—In the course of his daily duties, and especially during the Vaccination and Certification Campaigns, the Municipal Health Officer has been noticing and reporting to the Association, cases of leprosy. He also refers them to the Clinic for treatment. The Director of Public Health, and the Saidapet Municipal Council have kindly placed at the disposal of the Association, the assistance of the Municipal Health Officer, without prejudice to his routine duties. This favour has been deeply appreciated.

The School Survey :—The School Survey was begun in August 1933, and was conducted by Dr. J. J. Joseph, Chief Leprosy Officer, Government of Madras, Dr. D. Joseph, Municipal Health Officer, Saidapet, Dr. P. Muthukrishnan, Medical Officer, Government Dispensary, Saidapet, Dr. G. Rajagopalan, Medical Officer of the Association and Dr. P. Sundaresa Rao, Private Practitioner, Saidapet. The grateful thanks of the Saidapet Skin and Leprosy Relief Association are due to Dr. (Mrs.) Nilakantan of the Government Victoria Caste and Gosha Hospital, and to Mrs. E. Philip, who very kindly undertook the survey of the girls in the Municipal and Mission Schools.

A total of 1,344 children were examined in 9 schools, of which one is a Government school, 2 are Municipal, 5 are private and one a mission school. Only one school out of these nine was found to be entirely free from Leprosy. (Appendix B. Incidence. Government Order regarding Leprosy in schools). The Medical inspection of schools ceased as per Government Order in 1932.

The Association records its gratitude for the ready co-operation of the heads of the schools and their staff, during the survey.

THE HOUSE TO HOUSE SURVEY

Area :—The area marked out for this survey was Saidapet town proper, (excluding the Reddikuppam area), the busiest, and most thickly populated area, in the Saidapet Municipality.

Population :—Total 23,283.

Men 12,120—Women 11,163.

Medical Officer :—In its early stages, the survey relied upon the ready help of private medical practitioners. But it soon became evident that the problem was much more serious than had been realised, and that the survey process would be a lengthy one. Accordingly, the Surgeon-General to the Government of Madras was addressed, and the services of Dr. G. Rajagopalan, Honorary Medical Officer, Leprosy, Clinic, Government Royapuram Hospital, were kindly loaned to the Association. An honorarium of Rs. 75 per mensem was paid to Dr. Rajagopalan for his full time services from October 1, 1933 to April 14, 1934. In addition to the survey, conducted 6 days a week from 6 to 8 a.m. the Medical Officer was kindly permitted by the Surgeon-General to assist at the Leprosy Clinic, attached to the Government Dispensary, Saidapet, twice weekly. He has also been responsible for checking the survey records, following up the survey by revisiting registered cases, and for making the clinical examinations.

The Survey Party :—A group of about 12 social service workers comprised the survey party. A time-table was arranged, and the party daily consisted of at least 2 men and 2 women, in addition to the Medical Officer. The Saidapet Municipality very kindly allowed its Municipal Health Officer, Dr. D. Joseph, to assist with the survey every Saturday morning, on which day the survey party was also assisted by the women Physical Training Students from the Lady Willingdon Training College.

A beginning was made in Thoppet street, on Sept. 4, 1933. The survey proceeded street by street, and house by house, and an attempt was made to examine every member of each family and the servants. During the entire investigation only 5 houses refused admittance to the group. The survey party met daily at 6 a.m. at the Municipal Office, proceeded to the street then under survey, and then divided into two sections. The first section, composed of one man and one woman social worker formed a Propaganda party, and proceeding in advance with leaflets and propaganda material, they performed the important service of explaining our work, allaying fears, and collecting the family in readiness for the second section composed of the Medical Officer, and of social workers who assisted him in examining and registering.

Registrations :—A careful record of every case, suspected or positive, was made on the Registration Forms approved by the Government. Special Reference Tickets to the Leprosy Clinic Saidapet were given to each case.

The survey was completed on January 26, 1934.

SURVEY FINDINGS

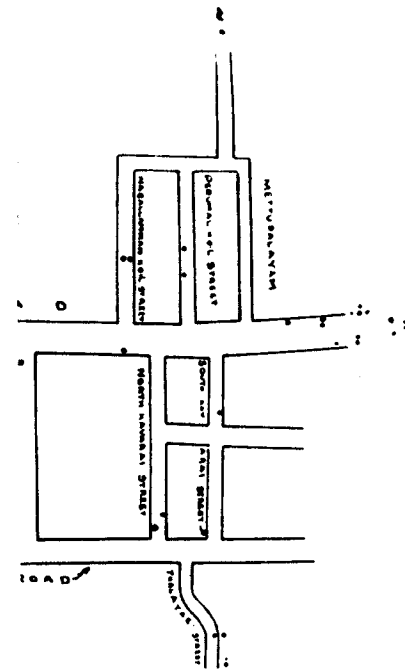
Positive cases of Leprosy 456.

Men 186, Women 152, Children 73.

Suspicious cases (not yet verified).

Men 23, Women 26, Children 17.

Total infective cases 194—Total non-infective cases 262.



OCCUPATION ANALYSES OF CASES

Weavers		178
Dyers		10
Dhobies		13
Food sellers		9
Cigar or Beedi makers		1
School Children		51
Homeless Beggars		4
Milk suppliers		7
Barbers		2
Coolies, betel sellers, jatka drivers		
Cultivators etc.,		268
86 houses contain 235 cases.		

(Appendix C—SPOT MAP OF CASES)

Treatment :—Free treatment for all cases of leprosy is offered to the public at the Leprosy Clinic attached to the Government Dispensary, Saidapet. The Clinic is open twice weekly.

SUMMARY OF CLINIC ATTENDANCE

Follow up Work :—The problem of securing regular and persistent attendance at the Clinic, for treatment, appears to be a difficulty in all leprosy relief work. The injection is unpleasant, and frequent visitation to the patients and constant propaganda is required if regular attendance is to be secured and maintained. With the completion of the House to House Survey the following plan of work has been undertaken.

The Association plans to retain the Medical Officer on a part time basis. On two mornings of each week he will assist in the Leprosy Clinic. On four other mornings he will do house-to-house visitation to registered cases. His purpose will be two fold :—

1. To encourage increased and regular attendance at the Leprosy Clinic.
2. To study the health and sanitation problems of the family, and notify the authorities likely to be of assistance. A special register has been devised for the use of the Medical Officer. It will always be available at the Clinic for the information of the Social Workers. The Medical Officer may average visits to ten families each day. In addition to his visits, each member of the Committee has the opportunity for keeping in touch with a certain number of cases. It is their duty to visit the homes and help to secure regular clinic attendance. By regular visits, confidence is established, and eventually the majority of the cases should take advantage of the free treatment available at the clinic.

PART II

Leprosy may not be considered as an isolated problem. The Saidapet Skin and Leprosy Relief Association feels that the mere detection of cases and

their treatment, isolated from all other factors, is not adequate. Accordingly an attempt is being made to consider the situation as a whole, and to correlate towards one goal all remedial activities.

Treatment of cases is imperative but the economic factor is equally vital. Malnutrition, inadequate and unsanitary living conditions, and the high percentage of other skin infections, all hinge upon the economic factor. Accordingly, a study of Saidapet as a whole is being made.

THE MUNICIPALITY OF SAIDAPET

Location :—6 miles from Fort St. George, a suburb of Madras, and adjacent to its Mambalam and Adyar limits. It is bisected by Mount Road, the chief thoroughfare to the Presidency, south of Madras, and lies on the Adyar River whose important Marmalong Bridge and the Saidapet Dhobykhana beside it, are notable landmarks within its municipal limits.

History :—The early history of Saidapet is obscure, but by the time of the Honourable East India Company it was a well known town, and is frequently mentioned in accounts of military manoeuvres near Madras. "In 1761, Shawmier Sultan received a grant of ground at Marmalong or Saidapet where most of his printed clothes are made" (Vestiges of Madras Vol. II, P. 615). The chief industry of Saidapet is to this day weaving and dyeing. At one time "Marmelon" boasted Botanic Garden comprising all or part of what is now Lushingtons Gardens. In 1799 Lord Clive ordered the transfer of the very large and varied nursery to what is now The Lal Bagh Gardens, Bangalore. Before Lushingtons Gardens stands an obelisk commemorating the generosity of Adrian Fourbeck, who left a legacy with which to build the bridge just beyond Lushingtons Gardens. The larger and more famous Marmalong Bridge across the Adyar River is still used by the great majority of road traffic out of Madras City to the southern part of the Presidency.

Administration :—Saidapet is a Municipality. Its administration now rests with a Council, and a Commissioner, who is its Executive authority.

Population :—

(Census 1931) 33,037.

Men 17,129.

Women 15,908.

(Compared with 1921) 27,404.

Men 13,947.

Women 13,457.

Communities—Hindus 30,501.

Muhammadans 1,341.

Christians 1,099, others 96.

Water-supply :—Saidapet does not have a protected water supply. There are at present about 750 private wells in houses, and 5 public wells.

A water supply system was begun in 1929. When funds allow its completion it will have cost Rs. 4,01,800 and will supply an area of about 4 square miles (Saidapet, Guindy, Mambalam) with a population of about 33,000. The supply is calculated at 15 gallons per head, per day of 8 hours.

Conservancy :—There is no drainage system. Sewage is collected in carts, and disposed of in 2 outflow channels. These are situated in the Reddikuppam Road, and Hanumar Koil Road, thinly populated areas. Filth is trenched in the Municipal Night Soil Depot on the outskirts of the city, and later hold as manure.

Street sweepings are collected in carts, and dumped in the rubbish depot located in the Western extremity of the town and sold once a year as manure. Though the improvement of the situation is hampered by lack of funds, some progress has been made.

	1933	1934
Number of scavengers and sweepers	71	93
Number of rubbish carts	13	13
„ night soil carts	15	17
„ sewage carts	15	21
„ dust bins	100	160

There are 2,837 houses in Saidapet. 1,024 of these are conserved. The rest have no latrine.

Public latrines :—To adequately provide for the needs of the population, there should be 10 public latrines. There are 5. They are conserved twice daily.

Town Nuisance Act :—Under this act, persons committing a nuisance on any street or lane may be served with a summons and are liable to a maximum fine of Rs. 50. This Act was put into force in Saidapet in November 1933. To date 88 persons have been prosecuted, of whom 62 were convicted and fined.

Street Lighting :—Saidapet is inadequately lighted. There are 4 types of lighting in use—73 electric lights, 15 gas, 98 incandescent lamps, and 58 kerosine oil lamps. The monthly cost of lighting Saidapet is Rs. 600.

Transportation Facilities :—The rapidly increasing use in Madras of modern methods of travel, has materially affected the life and prosperity of Saidapet. A total of 73 motor conveyances ply from Madras to Saidapet and points south. This has had a decidedly fluid effect upon the population of Saidapet. But an even more potent influence has been the electric railway. A total of 82 electric trains pass through Saidapet between the hours of 5-15 a.m. and 11-30 p.m. (41 trains making the trip to Tambaram terminus and return). This quick and constant service allows the householder to go to Madras early in the morning to markets and shops larger than Saidapet can boast, and still have ample time for his food and preparation for the day's work. While the benefits of this new amenity are many and varied, the effects

upon the financial life of Saidapet have been serious, nor can its disintegrating influence upon community life be disregarded.

Provisions for Medical Relief :—The Government Dispensary, Saidapet, has been in existence for over 40 years. Its staff consists of 1 Medical Officer, 1 Compounder, 1 Ward Boy, 1 Midwife and 1 Ayah. The Dispensary is open daily from 7 A.M.—12 Noon.

In 1933 a Male and a Female In-patient Wards were opened. The Leprosy Clinic adjoins the Dispensary.

Other Agencies :—There is a fairly large number of private medical practitioners in Saidapet, four of whom maintain private dispensaries. There is also one dispensary run by a Mission.

Maternal Relief :—A municipal mid-wife is employed. 172 labour cases were conducted by her in 1933, as against 99 cases in 1912. In Saidapet, cases conducted by the municipal mid-wife, and all other qualified mid-wives totalled 204 cases. There are 22 barber mid-wives in Saidapet. 18.2 per cent. of the live births registered received skilled attention. The mortality rate was 222.4 per mille of live births. The maternal mortality rate was 0.6 per mille of population.

The Red Cross :—In response to a request from the Saidapet Skin and Leprosy Relief Association, for their co-operation, the Red Cross Society, Madras, have established from 1st March, 1934, a Red Cross Centre at 24, Jayaram Chetty Street, Saidapet. The house is spacious and there is a well equipped maternity ward, with 2 beds. A qualified mid-wife is in residence, and available at all times. The section covered by the centre is for the present confined to the area south of Jones Road and west of the railway line.

The Health Visitor from the Red Cross Maternity and Child Welfare Centre, Chetput, and, under her supervision, the student Health Visitors from the Health School, are giving part time services in the area, doing health education in the homes of those with whom the mid-wife is in touch.

An Ante-Natal Clinic is held twice a month, when a lady doctor attends, where patients booked by the mid-wife are regularly examined and their health supervised.

It is hoped, before long, to hold regular consultation for babies and little children, thereby helping parents to keep them up to a higher standard of health.

It is further planned, with the co-operation of voluntary workers, to have regular meetings at the centre, for men, women and young people, with a view to rousing interest in the health and social problems of the community.

It is felt by the Red Cross Society that such a centre should, by catering for the whole family, rouse the public health conscience of the people, and not merely alleviate the immediate needs of the mothers and babies. This is the real object of "Welfare" work and, as such, has an immediate bearing on the disease problems which the Saidapet Skin and Leper Relief Association are tackling.

INFECTIOUS DISEASES

Enteric Fever :—A few stray cases in 1933. 195 contacts were treated with anti-typhoid vaccine.

Small Pox :—An epidemic prevailed in 1933 with 172 attacks and 66 deaths. About 8,000 vaccinations were performed.

Plague and Cholera :—Nil.

Filariasis :—Saidapet is known to be an endemic centre of filariasis (commonly called elephantiasis). The latest survey of the incidence of the disease was made in 1927-28 by the King Institute of Preventive Medicine, Guindy. The following excerpts are from their report, published in 1929.

"In a total of 1,664 people of all ages examined, there were 108 cases, or 6.5 per cent. with signs or symptoms of filarial disease. Of these 108 cases no less than 85 were cases of elephantiasis of varying severity" . . . "One thousand eight hundred and eighty-two female mosquitoes were caught in the survey areas and were dissected." . . . "No less than 603, or 34.6 per cent., of the *Culex fatigans* were found to be infected with microfilariae or later stages. One hundred and sixty or 9.5 per cent. contained fully developed larvae. Thus *C. fatigans* is the only mosquito carrier that need be considered, and roughly one third of its females were infected. The question has been asked (Sinton, 1922), whether a large amount of such filarial infection in mosquitoes might not have been obtained from animals and not from man. In Part II we bring forward good reasons for believing that the mass of this infection in *C. fatigans* in Saidapet is from man. So for the present we can assume this as proved. The chief sources of these mosquitoes were small cement pits receiving washing water and sometimes sewage. In most parts of Saidapet proper, each house drains into a pit which is supposed to be emptied by hand every morning. This is a pernicious system of so-called drainage, and its evils are intensified when it exists in a filarial endemic zone . . . There are a great many wells in Saidapet. They were found not so much to breed mosquitoes as to harbour them in the day time on their cool brick walls. The distribution of mosquitoes and of infected mosquitoes was remarkably uniform from house to house. Thus from a page of results taken at random, the findings as regards the numbers of female *C. fatigans* caught in a succession of houses and the numbers found infected read as follows—0-0, 8-2, 17-5, 9-4, 13-4, 12-3, 15-10, 6-1, 9-4, 9-2, 7-2, 10-3, 8-2, 4-3, 7-4, 13-5, 11-4, 13-6, 5-1, 4-1, 17-4, 7-2, 10-2 and 13-4."

"It is apparent that occupational differences exist . . . These differences are perhaps partly due to economic causes and partly, probably very largely, to differences in the actual physical nature of the work—for filariasis was highest in those females who worked in the same way as their men folk, i.e., in dhobies and shopkeepers, and to a less extent in weavers among whom it is less common for women to work at the men's trade.

Although the figures are small, the absence of filariasis in the women-folk of clerks and skilled labourers is striking and suggestive, because their

women do not do the husband's work. While occupational differences may partly be due to differences in exposure to infection, it seems to us that the figures for occupation strongly suggest that filariasis is associated with those trades in which there is most damage to the lymphatics. The dhobies stand a great deal, often in water or with wet legs—in Saidapet they usually stand in the Adyar River. Weavers sit for hours using their legs to move their looms, petty shopkeepers sit for hours cross legged. Such actions probably lead to lymphatic congestion. Therefore, to the two known factors in the production of elephantiasis—of infection with filariæ and with streptococci, must be added the predisposing factor of strain and damage to the lymphatics from the nature of the occupation."

(A House to house filariasis survey in Saidapet 1927-28 and a note on the source of filarial infection in Mosquito—by Lt. Col. H. H. King, I.M.S., Dr. Pandit, M.B.B.S., Ph.D., D.P.H., D.T.M., K. P. Menon, L.M.S., L.R.C.P.S., and P. V. Seetharama Iyer, M.A., from the King Institute of Preventive Medicine Guindy, Madras.)

Intestinal Infections:—The lack of a protected water supply is a contributing factor in the widely prevalent intestinal infections.

Skin Diseases:—Throughout the survey, an alarming prevalence of this disease was noted. "Saree itch" was met with constantly.

Health Propaganda:—17 lantern demonstrations and numbers of short talks and cinema demonstrations were held on various health subjects to a total aggregate audience of 2,934.

Vital Statistics:—In 1933 there were in Saidapet 1,124 births and 749 deaths. The birth rate was 34.2 per 1,000, the death rate 22.7 per 1,000.

The Food Adulteration Act:—Enforced in Saidapet from January 1, 1934. Samples have been sent, and the deterrent punishment given is already resulting in considerable improvement.

ECONOMIC SURVEY

At the request of the Saidapet Skin and Leprosy Relief Association, the students of the Y. M. C. A. College of Physical Education, conducted an economic survey of all families in which positive or suspected cases of leprosy were registered. This economic survey to be accurate requires time and patience and is not yet completed. The information secured is being used in the following way. Each occupation followed in Saidapet has been assigned a colour, dhobies for example a red card, weavers a green, clerks blue, etc., etc. The information secured regarding each patient is entered on a card. These may be arranged as required in our analysis of the common factors. A coloured spot map of the incidence of leprosy is also being made. It is already evident that the disease is, in Saidapet most widely prevalent among the weaving and dyeing groups.

A sample of the information secured from a group of 23 cases includes:—

Weavers	17	Total number of persons in families of these 23	85
Coolies	3	Total number of earning members	25
Appam seller	1	Average daily income per family	0—5—6
Conductress in a girls' school.	1	Average house rent per men-sem	1—0—0
Cigar maker	1	Total number of children	37
Total	23	Number of children going to school	4

This information presents a discouraging picture, when we know that malnutrition and a low standard of living form predisposing factors to leprosy.

THE ECONOMIC SURVEY OF INDUSTRIES AND OCCUPATIONS OF SAIDAPET

Weaving:—The primary industry. Occupies about 65 per cent. of the population. Wages low. Margin of profit small.

Dyeing:—Second in importance. Now a decaying trade. Wages low.

Dhobying:—Saidapet is the wash house for Madras. A prosperous trade. Occupies about 200 families. Not conducted on hygienic nor efficient lines.

Tile and Brick making:—A thriving industry. Occupies about 50 families. With 2 notable exceptions, not conducted economically nor scientifically.

Pot makers:—Purely a home industry. In contrast to brick and tile makers, each man makes and sells his own wares. Occupies about 30 families.

Gold smiths:—Occupies about 20 families. The workers are well-paid. Less money is now spent on cumbersome ornaments, and profits have declined. The general economic depression has also affected the industry.

Eating houses, and coffee hotels:—The number totals 58. As a rule they do not compare favourably in the matter of display or sales with similar ones in Madras. The Food Adulteration Act should improve conditions.

Tailoring:—About 30 shops. A busy trade.

Motor Repair and Machine shops:—This is a growing trade.

Farriers:—This was a fairly large industry, but the introduction of the motor car has reduced this number of families so occupied to 5.

Tobacco and Beedi making:—4 tobacco and 2 beedi branches of Madras factories. About 60 men are employed in beedi making, and piece work is also done by women at homes.

Oil grinding :—Engaged 5 families, in 1934, 19 oil presses in 1933. Machines are not used, but bullocks and the indigenous wooden-mill.

Minor Trades :—Printing presses, tanning factories, blacksmiths, soda factories, carpenters, soap makers and embroiderers are among the minor trades of Saidapet.

A STATEMENT FROM DR. IAN SUTHERLAND, MEDICAL OFFICER-IN-CHARGE, LADY WILLINGDON LEPROSETTLEMENT, CHINGLEPUT.

“The facts and figures published in the *Madras Mail* of July 12th concerning the incidence of leprosy in Saidapet are startling, but not surprising to those engaged in leprosy work. For obvious reasons the Census and other official reports on leprosy greatly underestimate the actual number of lepers in any given district or town, and it is through the work of such bodies as the Saidapet Skin and Leprosy Relief Association that the real state of affairs is revealed. The interpretation of the published figures is even more startling than the figures themselves.

The total incidence of leprosy in Saidapet appears to be approximately 1.5% of the population examined, which is a high figure. Our present knowledge of the disease suggests that nerve leprosy is associated with a high resistance to the disease, and skin leprosy with a low resistance. The survey shows that 42.5% are skin cases against 57.5% nerve cases, indicating that the community as a whole has a low resistance to the disease.

There is abundant evidence to prove that children and adolescents are more susceptible to the disease than adults and it is probable that leprosy is almost always contracted during childhood and adolescence i.e. from 5—20. One can gauge the advance or decline of the disease in a community by the incidence among children. The Saidapet figures show that children form 16% of all the cases. The incidence among the school children examined is 3.8%, which is about 2½ times the incidence among the entire population. It is thus apparent that not only is leprosy very prevalent in the community but is actually increasing. It is alarming to think what the incidence will be in another 10 to 15 years if determined measures are not taken to combat the disease. Treatment alone of established cases will not check the disease in the community. No one would attempt to check an epidemic of small-pox by merely treating those who have already contracted the disease.

Leprosy is a preventable disease and it can be prevented with comparative ease. The survey report wisely considers the general standard of life and hygiene in Saidapet. Leprosy occurs in every level of society, but is commonest among the poor. The chief predisposing causes are overcrowding, insufficient and improper dietary, bad hygienic surroundings, and the occurrence of other diseases. The correction of these is more important than specific treatment with drugs and injections. This is essentially the business of Public Health and Municipal authorities. Every infectious case should be isolated from close contact with healthy people. The treating of an infectious

case at a clinic and allowing him to continue living with healthy people will do nothing to prevent the spread of the disease. The high incidence among the weaving community illustrates this fact. The nature of their work is such that they are in close contact with each other and in a confined space, which are ideal conditions for the spread of the disease. Isolation in special institutions and settlements is the ideal method, but is costly and not essential. The individual can satisfactorily and sufficiently isolate himself in his home by reserving a room to himself and his personal belongings, which other members of the household, and especially the children, should not enter. In the case of those who live in one-roomed houses, the problem is more acute, and other methods must be adopted.

All this requires a great amount of propaganda and education of public opinion, but it will prove to be the most practical and indeed the only way of preventing the spread of the disease.”

Coimbatore Y. M. C. A. Physical Education Summer School, 1934

BY

D. SANTIAGO
(Physical Director.)

PREAMBLE

Once again, for the third time, a Summer School of Physical Education was organised from the 23rd April to 19th May, 1934 by the Coimbatore Y. M. C. A., chiefly for teachers in Elementary Schools. It was run, as before, under the auspices of the District Educational Council which is the official body co-ordinating and controlling elementary education in the district. This year, we are lucky in securing the co-operation and financial support of the District Board towards the school. We do feel that, since the school is intended for the whole district, the District Board is the proper body to support the school and we hereby wish to place on record our deep and sincere gratitude for the timely financial help the Board has rendered to the school this year and we do hope they would continue to support it year after year.

Unusually this year, applications came pouring in, so much so there were 152 of them full two weeks before the opening of the school. Most of them came from the Coimbatore district and the rest from the Trichinopoly, Malabar and Tanjore districts. What to do with such a big lot was our problem, as it would surely be an unmanageable and unwieldy group and it would be impracticable for us to give them any kind of effective training in such a short period and with two or three leaders. But luckily for us, only 61 turned up on the opening day. It was later found out that most of them who applied

could not come, as just then the Taluk Boards under whom they served were abolished and the managements of their schools was transferred to the District Board. But for this unexpected change, a good number of them would have come. However, the fact that such a large number of men did send in their applications for admission is a proof positive of the growing need and demand for a training school more and more effective and worthwhile in the years to come.

These figures, in comparison with those of previous years, reveal that the Coimbatore and Erode taluqs have continued to send in the largest number of men. It is a pity that no one came from the taluqs of Gobichettipalayam, Bhavani, Udumalpet, Kollegal and Tiruppur. Our object will not be completely fulfilled, if all the taluqs in the district are not properly represented every year; for the school is aiming to serve the whole district. From some of those unrepresented taluqs, nearly 30 teachers sent in their applications but none of them turned up. Very likely, as I have explained elsewhere, they could not come, owing to the sudden and unexpected change of management from the Taluq Boards to the District Board. We hope, however, that, in future, each and every mofussil taluq in the district will send in its adequate quota of men to the school. It is noteworthy that 3 teachers came from the Walparai hill taluq and 2 from Malabar and Tanjore.

Our chief aim is to train teacher-leaders for play activities in schools and we are happy to report that, in fulfilment of that aim, every year from 80 to 90 per cent. of the men have been teachers drawn from the elementary schools, the rest being students and others.

The Taluq Boards and Aided Mission Schools have, as usual, evinced keen and steady interest in the physical programme of their schools by sending in more than half the total number of men every year. We are glad to report that the Municipalities and the Aided Non-Mission Schools have sent as many as 15 teachers, the largest number being from the Coimbatore Municipality.

STAFF.

Mr. D. Santiago, Physical Director and General Secretary, Y.M.C.A., Coimbatore was in charge of the school, as in previous years, and he was ably assisted by Mr. John Edward Santiago, B.A., Physical Director, American College Madura, Mr. J. Rajaratnam, Physical Instructor, St. Michael's High School, Coimbatore and Mr. E. S. Armugham, Physical Instructor, London Mission Community Training School, Erode. We greatly appreciate and value the sincere and whole-hearted service they have rendered to the school to make it a success.

CURRICULAM AND DAILY PROGRAMME.

The course consisted of the following curriculum and we naturally laid more emphasis upon practical work than on theory work, as the training was primarily intended for teachers in elementary schools.

We started work every day at 6-30 A.M. and went on till 8-30 A.M. with a vigorous and varied programme of physical activities like. 1. Simple Calisthenics (drill), 2. Group Games, 3. Competitive Group Games, 4. Story Plays (kindergarten games), 5. Athletics, 6. Gymnastics (parallel bars and rigs-selected), 7. Pole and Wand Drills (elected), 8. Pyramid Building (selected), 9. Practice Teaching, 10. Indigenous Exercises, 11. Tumbings (selected).

From 10-12 A.M. we had Theory Classes in the class room i.e., simple vernacular talks on subjects like 1. Principles and Methods of Physical Education, 2. City and Village Playgrounds, 3. Hygiene and Sanitation in Cities and Villages.

We met again at 2-30 P.M. and went on till 4-30 P.M. with discussion of major and minor games, their rules, etc. This was practically a practical work class. In the evening between 5-30 and 6-30, we had a comprehensive programme of major games like. 1. Foot Ball, 2. Volley Ball, 3. Playground Ball, 4. Basket Ball, 5. Ring Tennis, 6. Field Basket Ball, 7. Indian Rugby, 8. Kho-Kho, 9. Balji, 10. Kilithattu (Attappattya), the last three being indigenous games.

PLACE OF WORK.

As usual, the practical work was done in the Y.M.C.A. grounds both morning and evening and the theory classes were held in the London Mission (now the Union) High School hall. We take this opportunity of thanking the London Mission authorities for permitting us to use the hall for class work.

GROUP SYSTEM.

From the very beginning, we had the men divided into groups with a view to create healthy competition among themselves in the various activities and to demonstrate to them the utility and value of such group under captains chosen by the men themselves.

SPECIAL TAMIL LECTURES.

During the forenoon theory sessions, some local lecturers were invited to talk to the pupils on various topics and they are as follows:—1. Rao Sahib C. M. Ramachandram Chettiar, B.A., B.L., President, District Educational Council on "The History of Physical Education in India" and "Indigenous Games," 2. Mr. P. K. Ramakrishna Iyer, B.A., L.T., Senior Deputy Inspector of Schools on "Physiology as applied to Physical Education," 3. Mr. T. B. Gopalachariar, B.A., B.L., Assistant District Scout Commissioner on "Scouting in Schools," 4. Mr. Veeraswamy Pathar, M.A., L.T., Junior Deputy Inspector of Schools on "The Development of the Child," 5. Dr. T. S. Nair, L.C.P.S., L.M.&H.S., Homeo Specialist on "Human System and Nature," 6. Rao Sahib Dr. Y. P. Vasudeva Iyer, M.B., B.S., B.S.Sc., District Health Officer on "Village Hygiene and Sanitation," 7. Mr. N. Lakshmana Mudaliar, Editor,

"Kooturavu" on "The place of Village Teacher in Rural Reconstruction" and "Physical Education in Western Countries," 8. Mr. R. Ramkrishna Pillai, B.A. Retired Sub-Magistrate and Social Worker on "The Village Library Movement," 9. Mr. R. Thirunavukarasu, B.A. on "The life and work of Subramania Bharathi, the poet of Tamil Nad," 10. Mr. J. N. Jayakaran, General Secretary, Y.M.C.A. Rural Reconstruction Centre, Ramanathapuram and 11. Mr. J. T. Rajanayagam, B.A., L.T., Teacher, Board High School, Erode on "Rural Service."

In our country, the village teacher is and should be the village guide so to say. He is there in the village not merely as teacher to the village children but also in a greater measure as teacher and leader to the village people and so the lectures we arranged were related not only to physical training but also to the general problems of rural uplift, as the subjects indicate. The pupils were greatly benefited by the lectures. We tender our sincere and heartfelt thanks to all the lecturers for their kind services. Even in the practical work, we drew up a programme of activities that will be useful and suitable not only to organise play activities for children in schools but also to introduce a play programme for the village people as well.

Throughout the course we laid special emphasis upon the indigenous games and exercises like buskies and dundhals; and kho-kho and Balji. These were once very popular in Indian towns and villages; but unfortunately they are now fast losing ground. They are excellent games and exercises from the physical standpoint and we are doing our utmost through the school to revive them and to bring them back to their original popularity. A good many of the games we have taught are non-equipment games and hence they could be easily introduced in elementary schools or anywhere else. There are a number of games which require some equipment and standardised or regulation play spaces; but even there we have taught the men to improvise equipment and to adjust play spaces to suit local conditions and materials available.

EXCURSION TO KALLAR.

We set apart one full day on the 5th May for an excursion. It is a regular part of our school programme; for we do believe that excursions have and should be given a definite place in the physical as well as the general programme of school work. The children and even adults gain a lot physically, mentally and socially by well organised excursions to places of interest under good leadership. This year we pitched upon Kallar once again; for it is a very attractive place for an excursion. It is situated on the Lower Nilgiris about 35 miles from Coimbatore. The perennial mountain river—"Kallar," the Government fruit gardens, the coffee plantations on the hill slopes, the Nilgiri hill railway that majestically winds its way through hill and dales and the wild but enchanting scenery all over the hill and down the valleys—all these are really a sight to see. We left Coimbatore at 5 in the morning in buses and from the foot of the hills we hiked through forest paths and ghat roads from place to place and went up to the Burliar gardens and on to Katteri on the

Nilgiri railway. It was a very pleasant and enjoyable trip and memorable experience to all of us. We returned at 8-30 in the night. We are deeply grateful to Mr. G. Doraiswamy Naidu, the Managing Director of the United Motor Service, Ltd., for placing at our service free of charge one big bus and to Mr. A. C. Hensman, the Deputy Superintendent of Police and his assistants for all the help they have rendered toward our transit up and down.

THE SCHOOL SPORTS

Saturday the 12th May was the school sports day. Every student took part in at least two of the ten events viz., 100 yds. dash, high jump, long jump hop, step and jump, shot put, ¼ mille dash, sack race, three-legged race, relay race and tug-of-war. They were all grouped into teams, namely—Tigers, Elephants, Wolves and Kangaroos. There was great fun and frolic and the competition was very keen. Our object in having a sports day was to practically demonstrate to the men the up-to-date methods and technique of organising and conducting sports in schools and in villages. The men themselves acted as sports officials. The day ended with a nice social party.

VISITORS.

Several local visitors came to see the school and we are thankful to them for their kind visits. Among them were Mr. U. Kannappa, M.A., L.T., District Educational Officer, Rao Sahib Dr. T. A. Raja, whose valuable services as the Medical Officer of the school we deeply appreciate, Mr. M. Damodara Kini, M.A., L.T., Principal, Government College, Mr. V. C. Subbiah Gounder, District Scout Commissioner, Mr. K. M. Thomas, M.A., Research Department, Agricultural College and Mr. A. C. Hensman, Deputy Superintendent of Police.

We should make special mention of two distinguished visitors who came from Madras viz., Mr. D. F. McClelland, B.A., Y.M.C.A. Regional (now Acting National General) Secretary and Mr. H. C. Buck, M.A., M.P.E., Principal, Y.M.C.A. National Physical Education College, Saidapet and Advisor to Government of Madras on Physical Education. Mr. McClelland gave a very interesting and inspiring talk to the students on "The value and importance of play programme in schools." Mr. Buck spent a day with us and was much pleased with our work and made some valuable suggestions for improvement. His short but impressive talk to the pupils was a treat to them. The Coimbatore Athletic Association was 'at home' to him when some informal discussion was done regarding the future development of sports and games in Coimbatore.

PUBLIC PHYSICAL DEMONSTRATION AND CLOSING DAY.

The school came to a close on the 19th May. A very interesting and attractive physical demonstration consisting of mass, pole and wand drills, tumblings, wrestling, kollattam, Indian Rugby, group games and story plays was put up by the pupils in the evening in the Y.M.C.A., ground in the presence of

- a large gathering. After this, Major Innes A. Cox, I.M.S., District Medical Officer who presided distributed the certificates to the pupils and spoke appreciatively of the value of the school.

OUR THANKS.

In conclusion, we should like to place on record our heartfelt thanks to the Municipal Council for accommodating the mofussil teachers in the Municipal High School premises, to the Principal, Government College and to the Rev. M. Masilamani, Headmaster, St. Michael's High School for lending us play equipments and to the Managements of schools, the District Educational Council and the Deputy Inspectors of Schools in the district who have helped us in various ways to make the school a success.

OUR APPEAL

We cannot close this report without making a few remarks regarding the necessity and importance of a play programme in Elementary Schools. We have every reason to believe from the experience we have had during the past three years that the Managements and the Educational Authorities of Elementary Schools are beginning or have begun to realise that, after all, play activities for school children and trained leadership to organise and carry on such activities in schools are a vital necessity for the full and all-round growth and development of the school boy. And it is also gradually being realised that play work in schools is really an integral and necessary part in the school curriculum. This augurs well for the future. If the Managements will only continue to evince the same interest and enthusiasm as they have shown up till now, we feel sure that a new era of good play and more of it for boys and girls will soon come. We therefore, appeal to one and all to go ahead this year with a fullfledged programme of play for the children in Elementary Schools.

“Life is a Series of Commencements”

The Address delivered by J. Solomon Esq., General Secretary, Y. M. C. A., Madras, on April 27, 1934.

The establishment of this college marked another great step in making the city of Madras one of the greatest educational centres of the country. We are all proud that this all-India institution has been located in our city. When students from all over the country come here to receive a specialised training in physical education we naturally feel a sense of superiority over those who live in the other great cities of India. For this pleasure and privilege of being proprietors of such a unique institution we owe a great debt of gratitude to those friends from far and near who have organised and developed it to its present condition. From small beginnings, after thirteen years of hard work, Mr. and Mrs. Buck have enabled this institution to emerge out of its experimental stage and have reported to us to-day of its proud entry into the ranks of the permanent institutions of the country. You will therefore

doubtless join with me in offering them and their associates our hearty congratulations.

The kind of training given in this college marks a turning point in the history of Indian education. From time immemorial, India has developed a type of education with a distinct philosophy and practice of its own. Whatever may be the shortcomings of ancient Indian education, one thing must be said in its favour, and that is, that education was conceived in terms of spiritual experiences. Anything that did not contribute to the spiritual regeneration of the individual had no place in it. The reason for this practice lay in the conception our ancient people had of the human body. The human body was considered an impediment to ascending spiritual heights, and it was therefore considered an enemy of man. The body was regarded as something to be fought out and its inclinations resisted; and the more a man subordinated his body and his intellect, the more spiritual he became. A study of this question of ancient Indian education, from which we have inherited our ideals of education, reveals a clear-cut distinction between the physical, the intellectual, and the spiritual. But this division of man into water-tight compartments—body, mind, and spirit—is quite opposed to the view of modern psychologists. They hold that these three aspects of man—body, mind, and spirit—intimately interplay on one another, and therefore human education must be considered as a whole, although it is thereby rendered very complex. Either we must educate the whole man, or else leave the man illiterate. If what our ancients said was true, education becomes a simple matter; we can send the body to the gymnasium, or the playground, the mind to the school, and the spirit to the church or the temple or the mosque. But that is obviously impossible. If we send the body to the playground, the mind and spirit also accompany. If we send the mind to the school, the body and spirit also insist upon going with it. So also, if the spirit goes to the church or the temple, the other two inevitably go with it. What then is the solution?

This college which is designed to offer its students a specialised course in physical education requires of its students a high standard of intellectual equipment and spiritual capacity, and emphasises the fact that the development of the body should go hand in hand with the development of the other aspects of man. This is indeed a great gain to Indian education, for, we have too long sacrificed this body, which is the temple of God's spirit, at the altar of intellect. When we look around and see the multitudes of students coming out of our schools and colleges, we become aware of the tragic omission of physical education in the curricula of those institutions; and what better corrective can we offer to our society than pointing out to our teachers and students the new gospel of physical education offered by this college. When we refer to physical training, the ordinary man thinks of it in terms of muscle-development in order to commit such monstrosities as stopping a running motor car, or allowing an elephant to walk over one's body. But this college challenges him to revise his conception of physical education, and it provides him with a leadership which would help in the education of the whole man.

We are living in an age of expanding leisure. Excess of leisure over work is one of the characteristics of modern civilisation. Science and industry have reduced the hours of work and increased the hours of leisure. So many thousands of men have to-day more leisure than they wish to have and in most cases leisure is forced upon men and women. This circumstance of enforced leisure compels us to revise our ideas of leisure and work. We are accustomed to think of work as something which is forced on us by the necessity of earning our daily bread, and we think of leisure as a period in which we are to do nothing. Leisure and laziness have become synonymous in our minds. What we now have to recognise is that there is an element of play in work, and an element of profit in leisure. Work is something to be enjoyed and leisure is something we should profit by. If it should be so, it is necessary that work and play should be correlated. Such correlation is a matter of training. In the same manner as we train people to work, we should also train them to play. We should recognise the need of play for everybody; play not only for boys and girls, but also for older men and women. Whole communities should be engaged in play as they are engaged in work. In meeting this new need, this college has an important function to perform. What it does is to train men who would go out into the communities, both urban and rural, to lead people in their play life. It provides a new type of leadership—leadership for leisure.

These new leaders have a supreme opportunity as well as a heavy responsibility. Their opportunity is to organise the leisure-time of their communities and direct it into such channels as art, music, play, and service. Their responsibility lies in studying the economic condition of their communities and finding ways and means of filling their leisure-time with not only interesting, not merely inexpensive, but also profitable activities.

To-day we hear so much about plans and proposals for bringing about peace in the world. But in organising the world for peace we must reckon with the leisure-time of people. Excess of leisure leads them to extravagant ideas which, in turn, lead them to discontent. Therefore, if we want to organise the world for peace, we must organise the leisure of people all over the world. So then, this college, by providing us with this new type of leadership—the leadership of leisure—is doing a great national and international task.

Those of you who are graduating to-day will do well to look back over the months of your stay in this college. I have no doubt you will always look back with great pleasure. It will bring you pleasant memories of not only the main product which you got out of your class-room lectures and playground practice, but also memories of those by-products which, in some ways, are even more valuable. Here you have learnt how communal jealousies and religious antagonisms could be obliterated, how men differing in caste, colour, and creed could live together in friendship. Here you have seen how love and loyalty could triumph over hatred and prejudice. Here you have realised the value of out-door work and the dignity of labour. You who have enjoyed all these privileges are now going out as missionaries of a new type

of education. You will be hailed as men who would remove not only intellectual illiteracy but also physical and spiritual illiteracy. You will be hailed as the new type of educators and I wish you joy and success.

Finally, I want to offer you a word of personal advice. There is a very significant term used in the American educational institutions. The Grade Schools, the High Schools, the Colleges, and the Universities, all provide, what they call, "commencement exercises" on the day students graduate from their institutions. The student who graduates from our Universities in India usually thinks that he has come to the end of his education, and that there is no more need to look into books or do anything else to continue his education. It is this mistaken conception of graduation that the word "commencement" tends to correct. What the word implies is that the student is really commencing another chapter of his education. He has received from his college certain methods of acquiring education and he now has to go into the world and give practical shape to his education. I would commend to you to-day this idea of commencement. Life is a series of commencements. I hope you will never come to despair because you have not accomplished all your aims. What we are concerned in life is not so much with what we accomplish but rather with what we commence. Do therefore keep on commencing new projects and new experiments as you go through life. Not only should you commence them yourself, but you should also help other people to make commencements. When they feel a sense of defeat and despair, you will put courage into them and enable them to start life again. This then is my wish for you on this day of your graduation that you would help the people committed to your charge not only in organising their leisure, not only in correlating their work and play, but also, in the words of Jesus, in giving them "Life, and life more abundant."

Coaching in Sports and Boxing

At the Y. M. C. A. College of Physical Education, Madras, on every Wednesday evening from 4-30 until 7 o'clock, opportunity is given to all those enthusiasts, (students and non-students), who wish to receive coaching in the technique of sports or boxing, or both. Sports coaching is conducted from 4-30 until 6 P.M., and boxing instruction from 6 to 7 P.M. So far the experiment has been fairly successful and a good number of boys and young men have been attending. We shall gladly admit more.

The whole purpose is to improve the general standard of performance in sports and in boxing, and to promote a wholesome amateur spirit in both activities. Therefore we welcome only those who are interested in purely amateur boxing and sports and we invite to help us with the coaching only those who are content to confine their efforts to amateur physical activities. The instruction is free, good facilities are available, all amateurs are welcome, and any who can assist with coaching are cordially invited to come and help.