BRITISH SOMALILAND

The leprosy problem in British Somaliland is a peculiar one. The 344,700 inhabitants are almost entirely nomadic. Experience elsewhere shows that leprosy is a very rare disease among nomadic tribes. And yet there is evidence that leprosy is not a rare disease in British Somaliland. This Report discusses the reasons for this and suggests methods of dealing with the problem.

I was asked by the Colonial Office to include a visit to this country in my tour of East Africa, and I landed in Berbera on August 8th, 1938.

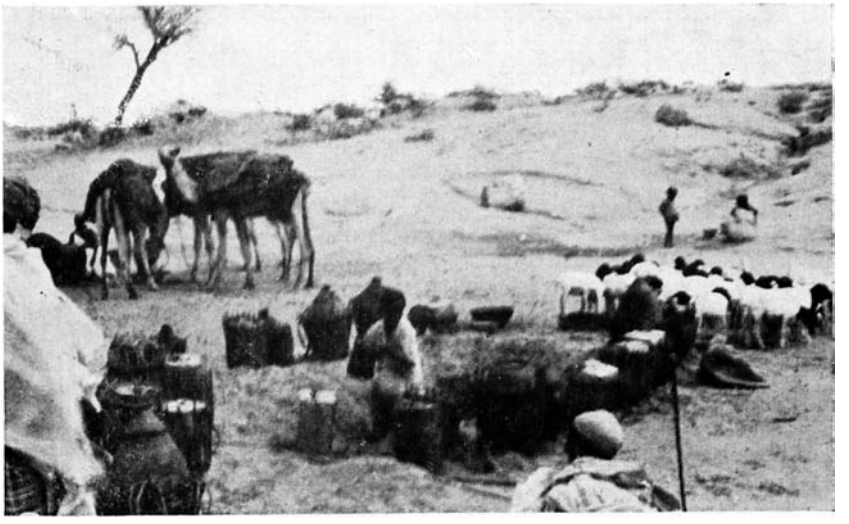
THE BERBERA LEPER CAMP

On the following day, in company with Dr. Bell, the Senior Medical Officer, and Dr. Clarke, the Medical Officer, I visited the leper camp in the outskirts of Berbera. There were 29 men and 14 women. Of the 43 patients, 25 are open nodular cases, the remaining 18 being open cases with diffuse and inconspicuous skin lesions.

The present leper camp at Berbera.

The latter are perhaps the greatest source of danger, as no one without making a careful examination would suspect the disease in 14 of their number. We have no proof that there are not many similar unrecognised cases at liberty mixing freely with the population. I have never before seen such a large proportion of lepers with this infectious yet inconspicuous form of leprosy, generally known as the diffuse type.

Only 7 of the 43 lepers are deformed or disabled, and these chiefly in a minor degree. This is a surprisingly low number. Physically, the patients are soft and flabby, the best developed being those who have been the shortest time in the camp. This is due to the want of physical exercise, there being little or no work for them to do. In fact I was impressed with the appearance of mental and physical deterioration. The most important part of treatment in leprosy is mental and physical activity: cheerfulness and abundant healthy outdoor exercise, backed up by good nutrition. Special treatment with injections of chaulmoogra, etc., is of secondary importance, and only of use when the former is in force. Under the circumstances, therefore, treatment cannot be expected to be satisfactory. There is no reason, as far as the



A water hole in the Somali desert.

health of the majority of the patients is concerned, why they should not do a good day's work. I expect, however, that compulsory segregation and the dole which many of them have enjoyed for years would be found to have made them unwilling to work, even if work were available.

The patients belong to the following tribes:—Habr Awal 24, Dadabursi 10, Habr Yunis 4, Aidegalla 2, Ogaden 1, Midgan 1, Hawaiyeh 1. Thirty-eight of them come from Hargeisa, Gibileh and Borama and have all spent some time at Jigjiga, Harar or other places in Abyssinia. Three come from Burao, one from Adadleh, and one from Erigavo. It is thus round Hargeisa and the Abyssinian frontier that leprosy is most common. I am informed also that the disease is very common over the border in the region of Harar, as well as in other parts of Abyssinia.

The present location of the leper camp appears to me to be unsuitable for the following reasons:—

1. It implies removing the patients a long distance from their homes to a warmer and less healthy climate, and one to which they are unaccustomed.

2. It is impossible for want of water to employ them in agriculture, the most suitable form of outdoor exercise; and thus, for want of suitable employment and exercise, a most important element in treatment is wanting.

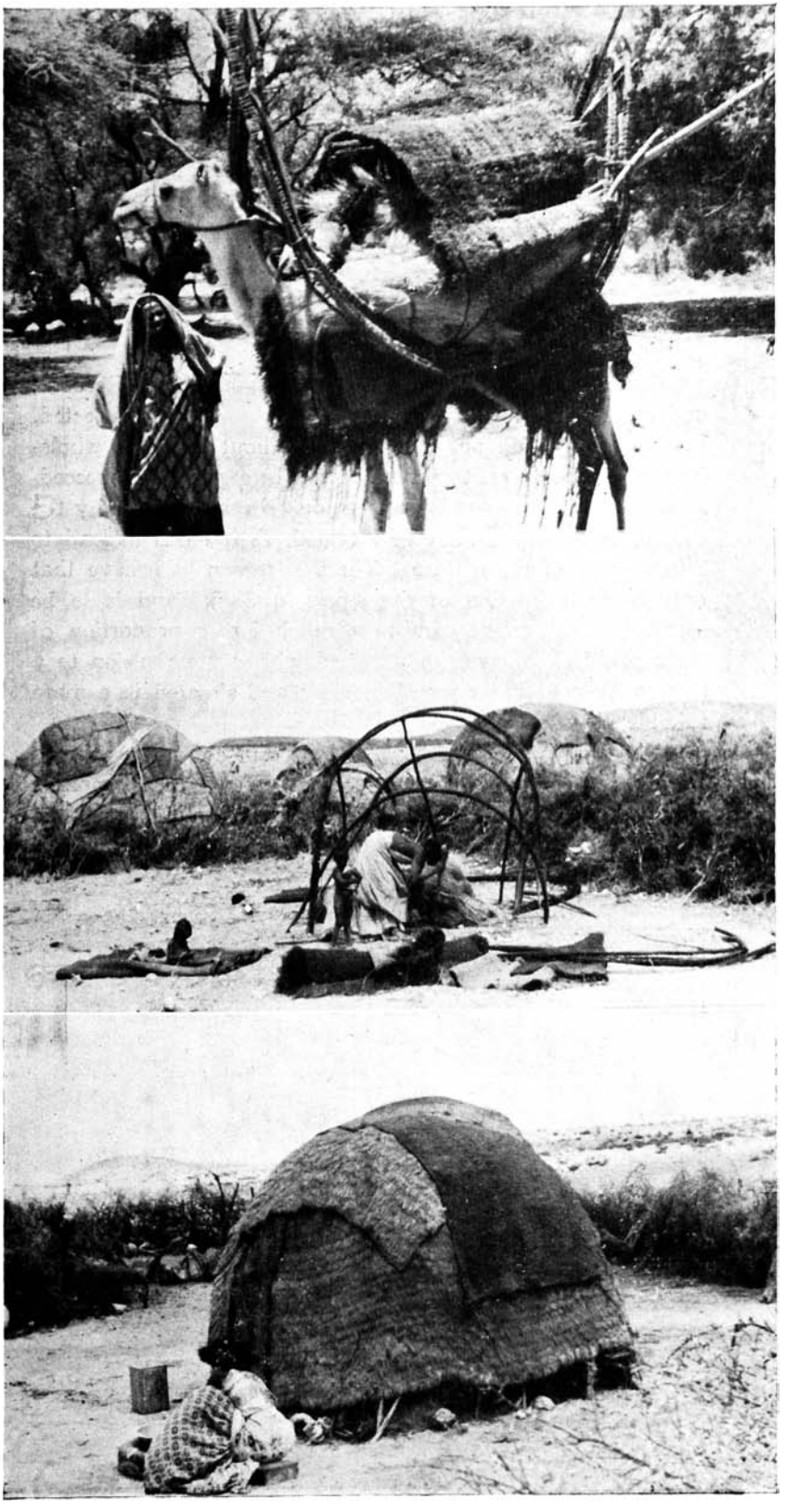
3. Compulsion is necessary to bring the patients to Berbera; under external compulsion improvement cannot be expected, as the patient will not co-operate; without full and whole-hearted co-operation, treatment cannot be expected to succeed. Moreover, under compulsion from outside the community the control of leprosy cannot be attained, as it tends to lead to concealment of the disease. There is reason to believe that only a small fraction of the lepers in Somaliland is to be found in the present camp; a much larger proportion of them could, I believe, be attracted without compulsion to a leper settlement run on modern lines and situated in a more suitable place.

4. The present camp consists of 5 rooms and the average cubic space available per person is 400 cubic feet, as compared with the 2,000 cubic feet which is a desirable minimum. The doors are locked at night and the patients shut the windows, creating an atmosphere which must be appalling and certainly is not conducive to the treatment and cure of any infectious disease.

It seems to me that for the control of leprosy in British Somaliland, and for the proper care of those suffering from this disease, there are two main primary essentials: co-operation with the Abyssinian Government, and the formation of a new leper settlement in a suitable place and run on the right lines.

CO-OPERATION WITH ABYSSINIAN AUTHORITIES

Seeing that leprosy is chiefly found in the regions of British Somaliland bordering on Abyssinia, and that leprosy is reported to be very common on the other side of the border, any steps which may be taken to deal with the disease on this side of the border alone would tend to be countered by coming and going between the two countries, which would lead to the spread of infection. Moreover, if an attractive leper settlement were established on the British side of the border it would tend to attract lepers from the other side.



Nomadic life is against leprosy. The *gurgi* (Somali tent) on trek; gurgi pitching; pitched.

I mentioned that leprosy is elsewhere considered to be a disease which is not common among nomadic tribes. To this I should add that it is most common where primitive tribes are beginning to settle down in villages and take up agriculture. As there is some likelihood that agriculture may be gradually introduced, and that the Somalis who are at present nomadic may in future tend to settle down in villages, there is a likelihood that the conditions favourable for the increase of leprosy may increase on both sides of the border unless timely precautions are taken.

I suggest therefore that steps be taken to negotiate with the

A dry land. Somalis begging water by the roadside.

Abyssinian authorities, and that if possible joint action be taken to deal with this disease which is of common and urgent importance in both countries.

NEW LEPER SETTLEMENT

The other step which I consider of primary importance is the formation of a new leper settlement in a suitable place and run on the right lines.

The *location* should be:

(a) within easy reach of the most important foci of the disease;

(b) in a healthy situation free from such diseases as malaria;

(c) where there is abundant land available;

(d) where there is sufficient water for cultivation as well as for personal use;

(e) not too near to any large centre of population, and yet where communications are sufficiently easy.

I visited, in company with Dr. Bell, a possible site at Haleya, about 7 miles from Hargeisa. Test crops have not yet been planted, so it is difficult to judge of the fertility of the soil. It is by the side of a large *tug* (seasonal river) and there are several water holes at present in use. I am informed that plenty of land is

The proposed site of the new settlement at Dumuk.

available. The annual rainfall at Hargeisa averages about 15 inches.

I also visited, in company with Dr. Bell and Mr. Walsh, the District Officer, a site at Damuk, about $4\frac{1}{2}$ miles from Borama, which was formerly used as a temporary camp for Abyssinian refugees. The land is flat and the soil appears good. There are gardens not far away. There is a good supply of water and plenty of land is available. The average rainfall at Borama is about 20 inches.

Of the two sites the latter appears to be the more suitable. There is more flat land, more water and a better rainfall. The climate is cooler, and, while it is far enough from Borama to ensure that patients do not stray into the town, it can be easily reached by motor or bicycle.

Personnel. (a) Next to the location the most important item is the personnel. To make the settlement a success there should be a suitable whole-time European Superintendent. He need not necessarily be a doctor, indeed, it would probably be impossible to get a whole-time doctor for such work unless the settlement were of a far greater size than is likely to eventuate in British Somaliland. In many countries this type of work is best done under the charge of Missions; but I understand that the Government would not favour such a scheme. The British Empire Leprosy Relief Association in co-operation with Toc H has in recent years sent out a number of young men who have volunteered for this type of work, chiefly to Nigeria but also to other countries. These sanitary workers, specially trained in leprosy work, are not open to the same objection that may be raised to Missions, and yet they are giving most valuable service especially in running leper settlements and developing occupation therapy through agriculture and industries. I suggest, therefore, that a Superintendent of this type be appointed by the Somaliland Government, if and when a suitable man is available. The salary would be on the scale of a Sanitary Superintendent—£480—20—540.

(b) Two African assistants would be necessary who would have some knowledge of English, and at least one of whom would be a compounder. They would be trained in leprosy work by the Superintendent. Their cost would be: for a compounder £50 a year; for an interpreter £30 a year.

(c) The work of the settlement would as far as possible be done by the lepers themselves. Training in agriculture, industries, sanitation and medical assistance would form an essential part of the activities of the settlements. For this the Superintendent would be responsible in consultation with the administrative, medical, educational, agricultural and veterinary officers of the Government.

The question of payment for labour is a matter for consideration. If the patient is paid for his labour, he should pay for his treatment and everything else that he gets. It is only in the case of those who are judged unfit for work, and in so far as they are unfit for work, that free allowances or other forms of free help should be given.

Admission of Patients. The patients would be gradually admitted on a voluntary basis after careful selection, so that admission would be counted a privilege. Few of those at the Berbera Camp would be found suitable for admission at the

beginning. A spirit of hopefulness, a desire for self-support, and active and willing co-operation are essential to the success of a leper settlement. Once a large enough nucleus had been formed of such patients, more patients from the Berbera Camp might be gradually transferred to the settlement, until at last the Camp might be closed down. Self-support should be aimed at as far as possible; though complete self-support, even apart from the expense of staff and other overhead charges, has never been found possible or advisable in a well-administered leper settlement.

At the Berbera Camp there are at present 43 patients, all of whom are open cases, only that type being admitted. In other countries the proportion of open to closed cases is generally 1 to 5 or 6. We are safe in concluding that there are at least 200 lepers in the country. But as lepers are as a rule only discovered when they become conspicuous cases and are noticed by a Government official, or when they come under the inspection of the Medical Officer for some other complaint without knowing that they have leprosy, it may be surmised that there are many more lepers than the above figures would suggest. Unless British Somaliland is different from other countries in which the voluntary system has been given a thorough and fair trial, it should soon be found that far more lepers are brought under control in this way and that the control is of a far more efficient kind.

The change over from the present compulsory to the voluntary system should not be too abrupt. It will be safer and easier to abolish the compulsory retention of those in the Berbera Camp once the voluntary system in the new settlement has been demonstrated in practice. Probably a period of two years should elapse before the present law is changed; but its application could be suspended as far as new patients are concerned during that period, except at the discretion of the Senior Medical Officer in the case of particularly dangerous and refractory patients. The bringing in of the new system might temporarily leave some infectious cases at large who would have been segregated under the old system, but any temporary disadvantage in this direction would be more than compensated once the new system was in full swing.

I would therefore advise that the number of patients arranged for be 200, though it might take some time to work up to that number. The confidence of patients has to be won, a confidence which may have been undermined by the present compulsory system. It would, however be well to make arrangements so that the settlement might later expand to 300 or 400 if necessary.

Buildings. A number of temporary buildings for staff, administration and the first patients would have to be erected so as to start off the institution. For this purpose a sum of £200 would be necessary, and, in addition, a sum of £50 for latrines.

For the patients *gurgis* would probably be best at the outset, and the manufacture of mats for the *gurgis* could form one of the industries in the settlement. Also, possibly, the grass for the mats might be grown in the settlement. If *gurgis* were found too expensive, simple huts of a type that can be kept clean and free from vermin might be used. It has been found in the most successful leper settlements that the usual type of dwelling in the country, improved as far as possible from the sanitary point of view, is the most suitable. Each individual would occupy one separate dwelling, a larger one being allowed for a patient accompanied by his or her family.

Once the settlement has become established, the following central buildings should be erected, as estimated for by Dr. Bell:—

	£
1. Administrative building, including treatment rooms and drug store.	500
2. Food store	50
3. Quarters for attendants	480
4. Quarters for Superintendent	700
5. Hospital wards	365
Total	£2,095

Also the type of dwellings for the patients should be improved to more permanent ones—cement base with mud walls and iron roof. It would, however, be a mistake to introduce such buildings at the beginning until the patients had been trained to the use of them. Patients could be taught to erect such buildings and could then occupy them.

Agriculture. As the people of Somaliland are not accustomed to agriculture they would have to be taught and gradually accustomed to cultivate fields. At least one acre per family would be necessary. The field could be enclosed with euphorbia, prickly pear or other forms of hedge. Provision would be necessary for grazing ground outside the area of cultivation.

The new settlement would require the almost complete support of the inmates for the first year until the crops are reaped. Allowing for 20 patients this would cost about £170 at £8 10s. 0d. each—including food, clothes, etc. An initial sum of £100 would be required for ploughs and other instruments.

I began this report by mentioning the fact that leprosy is uncommon among nomadic tribes. It is significant that the disease appears to be commonest in the garden areas between Hargeisa and Borama, where agriculture has been introduced, and where the people, though still living in their nomadic Gurgis, are to a certain extent tethered to their cultivation and live in closer contact with one another.

It might be urged from this that agriculture will lead to the introduction of disease and that it should therefore be discouraged. It would be better however to argue that the introduction of agriculture marks a natural and inevitable stage in the history of a people. Instead of discouraging agriculture it is surely better to take precautions, so that the dangers of disease accompanying the abandonment of nomadic life may be countered by better and more advanced sanitary safeguards.

I would add that a leprosy settlement such as is described above would be of value not only in the control of this disease but also in the introduction of sanitary reforms and agriculturual improvements, and the general civilization of the country.

SUMMARY AND SUGGESTIONS FOR PROCEDURE

1. The most important change in the system of dealing with leprosy recommended in this Report is the adoption of the voluntary as opposed to the compulsory system. This has been found successful in other countries where it has been given a fair trial, whereas the compulsory system leads to concealment and makes both treatment and control of the disease impossible. Whether the voluntary system will be a success in Somaliland remains to be seen, but I think it should be given a thorough trial.

2. If patients are admitted voluntarily to a settlement, they can be controlled within the settlement much more effectively than when they are compulsorily admitted. Thus, if they refuse to work or require discipline, the fear of dismissal or the stopping of treatment can be used as a punishment or an inducement to co-operate. In other words, the patient is admitted and treated and trained as a privilege and not as a punishment. To those who have seen and compared the two types of leprosy institutions—the voluntary and compulsory—there can be no doubt which is the more successful.

3. The present position of the leper camp is unsuitable and the new site should be accompanied by the new policy, a voluntary being gradually substituted for a compulsory system.

4. A different type of institution is advised, in the shape of

an agricultural settlement located in a suitable site and supervised by a suitable whole-time health worker, expert in leprosy.

5. Patients would be attracted to such a settement in hope of recovery and would lead a cheerful and active life which, along with good nutrition, is the most important requirement in the treatment of leprosy.

6. As leprosy in British Somaliland is largely bound up with the disease in Abyssinia, where it is apparently still more prevalent, it is important that steps towards control be taken, if possible, in consultation and co-operation with the Italian Government.

7. In carrying out the policy detailed above, I would suggest the following sequence of procedure:—

(a) The appointment of a suitable health worker, as already mentioned. Some time might be required for his training, say in one of the larger leper settlements in Nigeria, unless an already trained man is available.

(b) His first duty would be to visit the Berbera leper camp and find out which of the patients would be willing to co-operate if transferred to a voluntary settlement. He would also gather particulars of relations and contacts of the patients in the camp, so that he could follow these up and examine them with a view to offering residence in the camp to any new cases found to be infected.

(c) Two suitable African assistants would be appointed with a knowledge of English. One of these would act as interpreter to the health worker, and the other would be left in charge of the settlement when the health worker was absent.

(d) A suitable site would be selected for the settlement and a few temporary huts (*arish* or *gurgi*) erected. As soon as a few patients were available, either from the present camp or from among contacts—some 15 to 20 would be sufficient—the settlement would be begun with these as a nucleus.

(e) Temporary huts would be used for administrative buildings to begin with. The permanent buildings mentioned above would not be erected until experience had shown: (a) that the voluntary system was attracting patients, (b) that the site chosen was a suitable one. The Superintendant could, during the initial stage, live in a tent or temporary building on the site, or in a house at the district headquarters. Proceeding on these tentative lines would be wise, as the methods advised, although successful in other countries, are in the nature of an experiment in Somaliland, where immediate success has to a certain extent been prejudiced by the present compulsory system.

(f) Once the settlement was begun the Superintendent (health worker) would spend his time chiefly in the settlement, but would also continue to pay visits to endemic centres with a view to examining contacts and educating the people in the nature of leprosy and its prevention.

(g) While the above means are being taken to deal with leprosy, attempts should at the same time be taken to co-ordinate efforts at leprosy control in British Somaliland and Abyssinia. This might be attempted by local meetings of administrative and medical officers of the two countries, and also by negotiations through the respective Central Governments.

Acknowledgments. I wish to express my gratitude to His Excellency the Governor of British Somaliland and to Dr. Bell, the Senior Medical Officer, for the opportunity they have given me of studying the problem of leprosy in this country, and to thank the other officers who have, by their hospitality and help, facilitated my visit.