

PRELIMINARY REPORT

OF

LADAKH SETTLEMENT

BY

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SETTLEMENT OFFICER,

LADAKH.



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FROM

CHAUDHRI KHUSHI MOHAMAD, B.A.,

SETTLEMENT OFFICER,

LADAKH.

TO

THE SETTLEMENT COMMISSIONER,

JAMMU AND KASHMIR STATE,

SRINAGAR.

No. 941.

Dated Leh, the 9th November 1907.

SUBJECT:

Preliminary Report, Ladakh and Zanskar.

SIR,

I have the honor to submit herewith my Preliminary Report on Settlement Operations in Ladakh and Zanskar, with 5 copies each of the *Hidaitis* regarding *Riwaj-i-Abpáshi* and *Wájibul Arz*.

2. I have tried to be as brief as possible and to say nothing irrelevant, but the report has become rather lengthy in my attempt to make general conditions of this country clear to the higher authorities, who excepting yourself are not acquainted with this country.

3. I completed this report by the promised date, but its despatch has been delayed for a week or so spent in copying, &c.

I have the honor to be,

SIR,

Your most obedient servant,

KHUSHI MOHAMAD,

Settlement Officer, Ladakh.

PRELIMINARY REPORT

OF

LADAKH SETTLEMENT.

CHAPTER I.—DESCRIPTIVE.

1.—TRACT UNDER SETTLEMENT.

The tracts under settlement are :—

- (a) The Ladakh Tahsil ;
- and,
- (b) the Zanskar Ilaka of the Kargil Tahsil.

The Zanskar Ilaka was not settled with the Kargil Tahsil, as the former formed part of Padar Tahsil at the Settlement of Baltistan.

2.—BOUNDARIES.

Taken together, the whole tract under settlement is bounded on the north by the Karakoram mountains, on the east by Lhasa territories, on the south by Spiti, Lahol and Pangri Ilakas, and on the west by Tahsils Kishtwar, Kargil and Skardu.

3.—NATURAL DIVISIONS.

(a) LADAKH TAHASIL may be divided into the following divisions :—

I. *Central Ladakh*, consisting of villages along the river Indus, or at the mouths of the Nullahs falling into it. It comprises the following Ilakas, which may be regarded as the old 'Kardari' divisions :—

1. Giah.	5. Chachot.	9. Timisgam.
2. Hemi.	6. Ladakh.	10. Lamauru.
3. Chimre.	7. Bazgo.	11. Karbuchan.
4. Thikse.	8. Saspul.	

The Ilakas are given in order of altitude. The Lamauru and Karbuchan Ilakas are comparatively warm and fertile. Fruit trees are grown in most of the villages comprised in these 'kardaris.' Some of the villages produce two crops in the year.

II. *Rong*.—Above Central Ladakh the river Indus becomes a narrow rocky channel and the villages which occur in the side valleys are comprised in the Ilaka of Rong. The villages are colder than those of Central Ladakh, average altitude being above 13,000 feet.

III. *Rukshu* or *Rupsho*.—It is a wide tract at the south-east end of Ladakh, lying between the water-shed range and the Indus. The Leh-Kullu road passes through this Ilaka. The height of these valleys varies from 14,000 to 15,000 feet. The climate is extremely cold and dry. The snow limit is about 20,000 feet, which is due to the dryness of the air. The amount of snow-fall is very small. Cultivation is very scanty in this tract. The inhabitants called 'Champas' lead a nomadic life. Their livelihood depends on the proceeds of Shawl wool, and wages for carrying merchandise to Ladakh, Chinese territories, and Lahol. The Ilaka is very sparsely inhabited. There are large pastures for grazing goats and sheep and the chief item of the revenue is the grazing fees.

IV. *Tanktse*.—This Ilaka consists of the high plateaus above Rong and with the exception of Durgub and Tanktse, all the villages are very high and dry, most of them having an altitude of over 14,000 feet above the sea level. Tanktse—Lhasa route runs through this tract.

V. *Nubra*.—The Nubra Valley is separated from Central Ladakh by the Khardung Pass, which is 17,500 feet high. The villages are situated along the banks of the Shayok and Nubra rivers. The lower villages of this valley are as warm as the lower portion of Central Ladakh, while the upper villages also enjoy a moderate climate, as compared with the higher villages of Central Ladakh. Grazing and wood supply is also abundant.

(b) *ZANSKAR*.—Zanskar Ilaka lies south-west of Leh, towards the watershed range. Before the conquest of Ladakh it formed part of the Ladakh territories, being governed by a Raja, who was dependent on Gyalpo at Leh. Zanskar is closely united to the west of Ladakh both by physical characteristics and by close relationship in race, religion, speech and character that exists between the people of the countries. The villages in the Zanskar Valley are situated along the banks of the Zanskar river and its tributaries. The two main branches meet below the central village, Padam, and flow in a northern direction to join the river Indus near Nimo.

4.—PHYSICAL FEATURES.

The country is extremely mountainous with the most complicated ramification of mountain chains. Average height of the summits is about 20,000 feet, but some peaks rise to 26,000 feet above the sea level. These are not covered with vegetation as in Kashmir, but have a stern naked and dry appearance. Difficult passes intervene between various valleys, some of which are only accessible for four or five months in the year. The principal valleys are formed by the Indus, Zanskar, Shayok and Nubra rivers. Decent bridges are constructed only at three or four places. At all other places the rivers are crossed by means of *Jhulas* or ropes made of a wild plant, or ill constructed wooden frame work.

II. *Communication*.—The Principal communications are:—

- (a) *Kashmir-Yarkand road*.—This is the principal high road to Yarkand, via Kargil and Leh.
- (b) *Kullu-Yarkand road*.—This road enters Ladakh Tahsil from Labol in the Government territory and is the favourite resort of traders from Hoshiarpur, Amritsar, &c. The above two roads form what is called the 'Treaty High Road' and are kept in proper repairs by the British Joint Commissioner.
- (c) *Khalsi-Chorabat road*, leaves the Treaty road near Khalsi and joins the Kargil-Skardu road near Kiras. This road remains open only in summer.
- (d) *Tanktse-Lhasa route*, reaches Rodak via Man Pangam and Shushal. Is closed for about three months in winter.
- (e) *Giah-Damchok route to Lhasa*, closes in winter for about two months.

5.—AREA.

The extreme length and breadth of the Ladakh Tahsil are about 268 and 191 miles respectively. Its mean length and breadth may be taken at 170 and 124 miles respectively, and the total area about 21,080 square miles. The mean length and breadth of Zanskar are about 59 and 23 miles respectively and the total area about 1,357 square miles; but this huge area is mostly occupied by mountain chains. According to the papers prepared in Sambat 1958 the number of villages in Ladakh Tahsil is 110, in addition to which is the village of Masur,

which lies in the midst of Chinese Tibet and has never been visited by State revenue officials. In many cases the villages are groups of Muhallas situated far apart along the irrigation Nullahs; the principal Muhallas being usually at the mouths of these streams. These villages have generally been found suitable for administration purposes. In Zanskar the total number of villages according to Tahsil papers is 51; but these villages have not been properly grouped. Some of these groups of hamlets are too small and too near each other to be treated as separate estates; while others have no existence except in papers. Such villages have been given a name in honour of the higher authorities but no habitation. Some uncultivated areas were considered by local Tahsildars to possess potential possibilities for cultivation and were assessed and named as separate villages. The assessment was distributed over the adjoining villages and has continued in force up to this time, but the areas have never been brought under cultivation. In the present Settlement the number of estates in Zanskar will probably be reduced to 24. The area of Tahsil Ladakh according to papers of 1958 is as follows:—

Cultivated	...	...	1,68,151 kanals.
Uncultivated	...	...	10,06,651 "
		Total	11,74,802 "

The records of 1958 are based on the measurements of 1942 which have generally been found fairly correct, but the chain then used was 55 inches in length; while the present chain is 66 inches, hence the area above given will be reduced roughly by $\frac{1}{6}$ th, though for various reasons the figures of the two settlements cannot be expected to correspond exactly.

Zanskar has never been measured in the past and no records are available to show approximate area of the tract. Rough estimate was drawn up last year by Settlement Establishment according to which the total area is about 3,500 Ghumaons. This estimate will probably be exceeded on actual measurements.

6.—CLIMATE.

The climate of Ladakh and Zanskar is extremely dry and cold. In winter the rivers freeze and form natural roads, which are superior to the artificial ones. Thus in winter the Nubra and Zanskar rivers open up communications between Nubra and Chorabat and between Ladakh and Zanskar respectively. In many villages, there are temporary hamlets which are only used in summer while in winter the villagers decamp to the lower Muhallas at the mouths of the Nullahs. Cold is intense in Rupsho, the higher plateaus above Tanktse, in Rong and Zanskar, while Central Ladakh and Nubra possess a comparatively mild climate. But even in Ladakh cold is severe and the temperature often goes down in winter to 7 degrees below Zero. But owing to dryness of the climate the atmosphere is generally clear.

7.—RAIN AND SNOW-FALL.

The mid Hymalaya range obstructs monsoon currents which deplete their exhausted stores in the neighbourhood of Zojila and Drass. Hence the climate of Ladakh and Zanskar is extremely dry and rain-fall very insignificant. Similarly snow-fall in the Ladakh Valleys is scanty in spite of their high altitude. Zanskar being nearer the mid Hymalaya range receives more snow-fall than Ladakh, but the climate is, on the whole, very dry and cold, as compared with that of Kashmir. The spring, summer, and autumn together last little more than five months, after which the snow-fall closes all the approaches to Zanskar and the people are shut in for about six months. The snow does not clear up in spring in time for sowing and the Zamindars spread the earth in their fields which absorbs warmth from the sun and melts the snow. Figures of rain-fall are not available for Zanskar, but it is registered in Leh by the Tahsil officials and by the Government Meteorological Department.

The Tahsil record does not seem to me to have been correctly kept up owing to ignorance of some office Kanungos with regard to method of registering snow-fall. The registers of the Meteorological Department have been kept up very carefully and are quite reliable. I attach herewith Statement I showing amount of rain-fall during the last four years. It will be seen that average rain-fall comes to about three inches per annum which is very insignificant. Fortunately irrigation

does not depend entirely on rain-fall, as most of the irrigation Nullahs are fed by snow fields, though crops are usually scanty during years of insufficient snow-fall.

8.—INHABITANTS.

Most of the inhabitants are Buddhists belonging to the Tibetan race; but the entire population consists of the following races :—

- I. *Champas*.—They belong to the Tibetan race and religion and lead a nomadic life on the up land valleys, which are too elevated for cultivation and only fit for pastoral uses.
- II. *Ladakhis*.—Belong to the Tibetan race and inhabit Central Ladakh and Nubra. The Zanskaris also resemble the Ladakhis in race, religion and mode of livelihood.
- III. *Baltis*.—They belonged originally to the Tibetan stock; but have been converted to Islam. They are immigrants from Baltistan and are found in a few important villages near Leh.
- IV. *Dard*.—They are immigrants from the direction of Gilgit and have accepted Buddhism but they still retain some practices of their old religion. They are a hardy and dirty people and are only found in Dab and Hanu.
- V. *Half castes*.—They are mostly found in Leh and are called *arghuns*. This hybrid class is the result of inter-marriage between Buddhist women and men from Kashmir and elsewhere. Some solitary hybrids are also found in a few villages near Leh.

The Buddhists are a simple people and do not trouble about pedigrees and tribes. They are usually known by a familiar name given them with reference to their dwellings, and some of them can not even tell the names of their grand fathers without the help of their neighbours. In character they are good tempered, obedient, peaceful, honest in their dealings and much given to truth telling. They usually wear a coarse home made woollen dress. On festive occasions they appear in costly silk raiments borrowed from their rich neighbours. Men and women enliven their labours with songs. Their food usually consists of barley meal. It is either made into a broth or a sort of dough eaten with butter milk. They drink large quantities of *chang* which is a light beer made of *giram*. Almost all the villages are engaged in agriculture and are usually their own artisans. The only castes regarded as low are *mon* (musician) and *gara* (blacksmith.) The custom of polyandry keeps the family estates whole and intact and prevents inconvenient increase in population. This institution is well adapted to the limited resources of this country and as a result the Buddhist polyanders are better off than their neighbours, the Balti polygamists. The monasteries or *Gunpas* also assist in keeping the population within bounds, as a large number of Buddhists enter the service of the monasteries and lead a life of celibacy. The *Gunpas* are held in great reverence and the people make very large sacrifices to maintain them. *Muafis* are given to the *Gunpas* by individual Assamis and *Gunpa* lands are often cultivated without any remuneration. Generally speaking the people are fairly well off; but they owe very large *jinsi* debts to the various *Gunpas*. In some villages these debts reach startling figures and are counted by thousands and even lacs of maunds. But Zamindars do not feel uneasy about these debts, as the *Gunpas* are lenient creditors and write off large amounts, when the accounts become inconveniently clumsy. The *Gunpas* may be regarded as the agricultural banks of the country. The usual rate of interest is 25 % which is carefully calculated and added to the principal every year, but it may be said to the credit of the *Gunpas* that they seldom go to court to recover their debts. The Hemis, Spituk and Gown are the most important monasteries.

9.—POPULATION.

The figures of population are :—

No.	Census.	Male.	Female.	Total.	Percentage of increase since last census.
1	Census of Mehta Mangal ...	10,703	9,344	20,047	.....
2	1891 ...	14,350	13,924	28,274	40
3	1901 ...	15,905	15,715	31,620	11·83

The above figures will show that inspite of the institution of polyandry there has been an increase of 11·83 per cent. during the last census decade. The figures of Mehta Mangals' census seem fairly correct, as they give about the same rate of increase, the census having been taken about 45 years ago. It is clear that there has been a steady increase in population of this country under the present stable Government. According to the Census of 1901, average density of population in Ladakh is 139 souls per square mile cultivated, which is much below the average of the other districts of the State.

10.—SHORT REVENUE AND POLITICAL HISTORY.

In addition to the Ilakas now comprised in the Ladakh Tahsil Drass, Sura, Kartse, and Zanskar Ilakas of the present Kargil Tahsil formed part of the dominions of the Budh Rajas of Ladakh. The Raja was a big landlord, who held extensive lands in each village, which were cultivated at the expense of the villagers and thus the revenue was paid in service. Besides this one load of Bhusa was taken from each Assami and firewood was also realised from some villages. Free labour by 'Halla-sheri' system was often taken on important occasions and nothing was paid for the transport employed for the Lhasa Missions. Grazing tax was also taken in kind in Nubra and Tanktse Ilakas, one sheep out of ten being the general rule. The Raja had his own herds of cattle in the above Ilakas. This system of maintaining State cattle continued in force till the year 1953, when it was abolished by orders of the State Council. The events connected with the conquest of this country by Wazir Zorawar Singh, and his brave exploits during the campaigns are most tempting subjects, but as it is beyond the scope of this report, I must refrain from giving a detailed narrative of the conquest. After the battle of Kartse, the then Raja, Suspul Tundap, readily came to terms and agreed to pay Rs. 5,000, per annum as Nazrana to the Kashmir Durbar, but he soon changed his mind, and Wazir Zorawar Singh had to come up with his troops to Leh. The Raja was deposed and made Jagirdar of Stoke, and Stanzan Murap, a leading Lunpo of Ladakh, was given charge of the administration, Magna Thanedar with 300 troops being left in the Leh Fort to strengthen Murap's authority. An annual Nazrana of Rs. 9,000 was fixed, and the internal collection of the revenue was left in the hands of Murap Stanzan. This state of things lasted for about six years, during which time Skardu was conquered by Wazir Zorawar Singh. An important service was rendered during this period by Raja Saspul Tundap, who used his influence with the Raja of Khaplu to facilitate passage of Dogra arms to Skardu, but he died of small-pox during this expedition. At the successful termination of this campaign, Wazir Zorawar Singh returned to Leh with a large force and invaded the territories of Lhasa Government, who had taken advantage of the turmoil to encroach on the Ladakh border. The Wazir defeated the Lhasa forces at Rudak and occupied Rudak, Garduk and Purang territories. But this expedition came to a disastrous end, owing to the Wazir's troops being disabled by heavy snow-fall, intense cold and shortness of provisions. The Wazir died bravely fighting to the last and his forces sustained a severe loss. The news of this disaster was carried to His Highness the Maharaja Sahib Bahadur by Mehta Basti Ram, when fresh troops were sent from Jammu under Pahlwan Singh. In the meantime, the Lhasa troops had marched to Ladakh and a large number of Ladakhis joined them but Pahlwan Singh's troops were further strengthened by reinforcements sent under Dewan Hari Chand, and Wazir Ratanu. Battles were fought at Chinre and Durgab, where the Lhasa forces were utterly routed. These events happened in Sambat year 1898, when order was restored and an agreement was drawn up with the representatives of the Lhasa Government to respect the possessions and restore relations, which had existed between Lhasa and Ladakh before the rupture. Since then friendly relations have been maintained and exchange of presents continued with the Lhasa Government.

Diwan Hari Chand kept Magna Thanedar in Leh and fixed the revenue in consultation with Kalaun Rigzin at Rs. 18,000. This demand was roughly fixed at the rate of Rs. 7, per 'Zamin' (*Zamin* was a land measure of 30 *Khals* or about 30 *Khals* roughly). Some revenue in kind was also taken to meet the requirements of the troops stationed at Leh. This arrangement continued in force till 1917, when Mehta Mangal, the well known administrator and financier of this frontier was appointed Wazir. During his five years tenure of office, he placed the revenue administration on a firm footing. He reassessed Ladakh and added 0-11-0 in cash to the rate of Rs. 7, per Zamin. This item was imposed in view of Rasum Waziri, Salam Dosehra, etc. A rough Assamiwar Kھیوات

was drawn up giving the name of Assami, area of the holding as ascertained by verbal enquiries and the revenue payable under different heads. His cash assessment amounted to Rs. 24,000, but no change was made in the *jinsi* demand. He was followed in Wazarat office by Wazirs Shiv Saran, Ali Akbar Shah, Bhai Ganga Singh, Mr. Drew and Mr. Johnson. The last named Officer held charge of the Wazarat Office from 1927 to 1938. During this period further increase was taken in respect of areas not assessed before and the total demand in 1938 rose to Rs. 49,019, details of which are given in Statement No. II. Rai Bahadur Pandit Radha Kishen Kaul was appointed Wazir in 1939. During his time Settlement operations were started under Bakhshi Dheru Mall, who was removed after some time and the settlement establishment continued their work under general control of Rai Bahadur Pandit Radha Kishen. Assessment for each estate was worked out on completion of its measurement. These proposed assessments gave rise to persistent complaints and a large party of leading Zamindars reached Srinagar and petitioned His Highness the present Maharaja Sahib Bahadur against the heaviness of the proposed assessments. The matter was settled by a compromise, as the Zamindars offered to accept an increase of 25% in the then current demand. The proposal was sanctioned by His Highness and the cash revenue enhanced accordingly; but no alteration was made in the *jinsi* demand which continued as before. Thus the revenue demand was fixed, but the Settlement operations continued in progress, and the following papers were prepared:—

No.	Name of paper.	No. of villages.	REMARKS.
1	Fard-i Muauila	29	Shown the revenue in cash and kind for each holding, together with area, number of live stock and inmates of the house.
2	Shajra Kishtwar	89	
3	Khatauni	91	
4	Khasra Paimaish	91	
5	Fard-i Bachh	3	
6	Shajra Nasb	21	
7	Mardum Shumari	11	

Wajib-ul-arz was prepared for the whole Tahsil, but not for each village, nor were the above noted papers prepared for all villages in the Tahsil.

In the revision of assessments in 1958 the current demand was hastily revised and reduced to a small extent. The number of estates was fixed at 110. Certain alterations and additions were made in the papers prepared in 1942, measurement was done in some villages and *Jamabandi* was prepared for each estate, but no estimates of the average produce were drawn up and no enquiries made into prices etc., and hence the alterations made in the existing demand were merely a matter of discretion. The assessment report is only a collection of brief notes in which little mention is made of the general agricultural conditions, estimates of average produce or any revenue rates adopted by Settlement Officer.

I have examined all the *khatabandis* and *qistbandis* traceable in Wazarat Office. Statements No. 2 to 7 are attached herewith to show details of the revenue demand in certain years in which the then existing demand was modified. Value of *Jinsi* demand is not mentioned in the Wazarat registers, but I have ascertained the prices then current and with a view to form an idea of the alterations made in the total revenue demand from time to time, the value of the *Jinsi*

articles has also been worked out and added to the cash revenue. The net result is as follows :—

No.	Name of year.	Total revenue.		Remarks.
		Rs.	A. P.	
1	1938	49,019	13 2	
2	1942	57,244	11 8	Increase due to cash Jama being raised by 25 %
3	1954	50,397	5 0	Decrease due chiefly to collection of butter being abolished.
4	1955	57,085	12 6	Increase due to the enhanced amount of grain revenue and rate per maund.
5	1959	53,454	7 6	Decrease due to the reduction in cash and revenue demand.
6	1963	52,264	15 11	Decrease due to Lambardari dues being deducted from revenue.

The valuation of the current demand of 1958, made by Mr. Clarke in his Assessment report, is incorrect and hence his figures do not correspond with mine. No records are available in Wazarat Office showing revenue history of Zanskar Ilaka. I asked the Tahsildar of Kargil to send me all the records bearing on the subject, but no papers have yet been received. The current demand of that Ilaka is Rs. 2,624-9 0. The Jama of this Ilaka was first pitched at a much higher figure but on a representation of the Zamindars, it was considerably reduced in 1869. Further details of the revenue history of Zanskar will be given in the Assessment report.

CHAPTER III.—PRESENT SETTLEMENT.

11.—SANCTION.

The present Settlement was sanctioned by His Highness' orders dated 1st Bhadon 1963, and will be considered the first regular settlement of Ladakh Tahsil and Zanskar.

12.—COMMENCEMENT OF OPERATIONS.

The Assistant Settlement Officer reached Leh on 25th of Sawan 1963, with one Naib-Tahsildar's party. This party consisted of experienced and select Karkuns and was sent on to Nubra with a view to finish measurements of that Ilaka before the end of the working season. Three parties followed in the month of Bhadon and the last party arrived at Kargil with Settlement Officer by the end of Bhadon and was sent up to Zanskar. Settlement Officer reached Leh on 4th Assuj 1963, when necessary instructions regarding classification of soil and preparation of measurement papers were issued for the guidance of the field establishment. These instructions were got printed and a copy was submitted to the In-charge Settlement Commissioner for approval.

13.—DIFFICULTY OF PROCURING ESTABLISHMENT.

It must remain a difficult task to get together a competent establishment for the frontier settlements. The difficulty was experienced by the Settlement Officer Baltistan, and the experience has been repeated to a greater extent, in the present Settlement, but I have taken care not to enlist ignorant and unreliable Karkuns and sacrifice accuracy to dispatch. After my arrival here and inspection of field work, I found that about half the Karkuns were weak and incompetent. Of these 16 were found quite incompetent and the work done by them was found quite incorrect.

The matter was reported to the In-charge Settlement Commissioner and these ignorant men were brought under reduction. A few new Karkuns have joined since then, but the deficiency has not been fully made up, and average strength of Karkuns during the past year was 57 instead of 67. The difficulty in procuring competent Karkuns is due to the fact that qualified men can easily find employment in the Punjab and in the two State Settlements going on in the Jammu Province. Also new candidates are frightened at the exaggerated tales of the severity of Ladakh winter, dearness of provisions and compulsory reductions from pay on account of grain and fuel etc.

14.—DIFFICULTIES OF SURVEY.

The following difficulties hamper the progress of field work in this Settlement:—

The country is extremely mountainous and cold. Communications between villages are difficult. Rivers have to be crossed by means of Jhulas and clumsy wooden frame work, which occasionally give way without notice, and cause loss of life and property. Some villages in the higher valleys are situated at enormous distances from each other and the Settlement officials have to pass days and nights in uninhabited tracts before reaching the villages. Work is frequently interrupted in the higher villages by showers of snow and strong biting wind, which is a frequent afternoon visitor.

15.—PROGRESS OF WORK.

In spite of the above difficulties, measurement work was steadily pushed on last year and the measurement of 62 villages was finished before the end of the working season, which was fortunately unusually long. In compliance with the strict orders of the Settlement Commissioner strict care was taken to prevent incorrect or perfunctory work, and some unreliable work done before my arrival was done anew under proper supervision. All

inspecting officers did their best and a vigilant supervision was exercised, average number of inspections per chain being about seven in each month. I have personally inspected each chain more than once and can confidently vouch for the correctness of the measurements. The average field work done by each Karkun during the last year was 17 field numbers per day, which I believe is above the average output of work of many hill settlements. Girdawari had been done by the Revenue establishment but it was found most unreliable and was revised by the Settlement establishment. With a view to form an idea of the state of crops in Zaskar, where no records existed, a rough mapping of the fields was done last year for the purpose of Girdawari which, when compared with the correct records of this year, will prove a useful guide as to the condition of last year's crops. Girdawari has been done this year by the Settlement Establishment in Ladakh and Zaskar. I believe measurements will be finished in most of the villages this year, and a few villages will only be held over for the next year. But if snow-fall held off till Magh, as in last year, I hope to finish measurements in Ladakh before the close of this year. Nubra was finished last year and a party of select Karkuns under efficient supervision was sent to Zaskar. Assistant Settlement Officer and myself have in turn supervised the measurement work there. I had hoped to finish measurements there but heavy snow-fall stopped work there before the end of Assuj and the Karkuns are returning to Ladakh.

16.—SYSTEM ADOPTED FOR MEASUREMENT.

Measurements have generally been done by the triangular system. But Murababandi was adapted in some villages in the open parts of the Indus Valley. Instructions were issued that only the cultivated and culturable areas should be measured except when Ghair Mumkin land of small extent intervened in the cultivated or culturable areas or village site.

- (a) The following records are prepared at the spot, along with the progress of the measurements: (1) Shajra Nasb (2) Khatauni (3) Shajra Kishtwar (4) Khasra Paimaish (5) Fard-i-Rangsazi (6) Khaka Murababandi or Musallasbandi, (7) Parcha Zamindari (8) Naqsha Jandar and Ghurat (9) Naqsha Mal Shumari and Mardum Shumari (10) Riway Abpashi with Shajra and Khasra (11) Wajib-ul-arz (12) Entry and attestation of mutations and (13) Girdawari.

Instructions have been issued to prepare Wajib-ul-arz and Riwayiabpashi papers. These are simple but well adapted for the needs of the country and furnish a clear record of rights in irrigation, waste land, pasture etc.

- (b) Winter recess is utilized in Takmil, and Aks work. All papers prepared on the spot are carefully revised and checked.
- (c) It is proposed to prepare the following papers which will form part of Misl-i-Haqiyat: (1) Index (2) Itobkar-i-Ibtadai (3) Shajra Nasb (4) Jamabandi (5) Khasra-i-Darakhtan (6) Naqsha Tafwizat (7) Riway Abpashi (8) Naksha Jandar and Ghurat (9) Tarika Bach (10) Wajib-ul-arz (11) Tanqih Haquq Muzari'an and (12) attested mutations.

17.—MUTATIONS.

During his tour of Ladakh in Sambat year 1962 the Settlement Commissioner found that the mutations attested in this Tahsil, since 1958 were unsatisfactory in many respects and instructions were left in his inspection note that these mutations should be examined in this Settlement and corrections made where necessary. These mutations were carefully checked during the last winter and the irregularities found were noted on each Intiqal, and mutations were sent to Naib-Tahsildars for necessary corrections and further report, when necessary. I may take this opportunity to remark that since 1958, the mutation work of the whole district has been found very faulty

owing to incompetence of the Patwar agency and want of Settlement experience on the part of some revenue officers. Usual rules governing attestation of mutations have not been followed in many cases and the inquiries made and orders recorded by Revenue officers are incomplete and irregular. The total number of such Intiqals is very large and it would be most inconvenient to report all such Intiqals to the Revenue Minister for necessary corrections under Section 15 (3) of the Punjab Land Revenue Act. I would, therefore, request to be empowered to rectify any errors in the mutations that come up to me from all three Tahsils as Wazir or as Settlement Officer, such orders will be issued by me in accordance with the instructions which have separately been drawn up for this district and submitted to the Settlement Commissioner. My orders will, of course, be subject to appeal as usual.

18.—REVENUE ASSIGNMENTS.

Muafi files and records of rights of this Tahsil were hastily prepared in Sambat year 1958. Many areas actually in possession of the Gunpas were recorded in the name of Zamindars and *vice versa*. Subsequently most of these areas were transferred to the real occupants under mutation orders of Naib-Tahsildars and other Revenue officers. Hence a large number of Muafidars applied for revision of their Muafi cases. All these cases have now been transferred from Wazarat to the Settlement and will be dealt with by me in due course. I think it premature to report on these Muafi cases before Tasdiq-i-akhir has been done in villages concerned, as in that case the entries made in Muafi files often disagree with record of Misal-i-Haqiyat. It is found to be the case in almost all the Jagir files prepared in the Settlement of Baltistan. Proper care will be taken that areas transferred to Gunpas since 1958 and not forming part of the Muafis before that year are not included in Muafis. Statement No. 8 is attached showing details and the total amount of the revenue assigned in Tahsil Ladakh.

19.—KNOWLEDGE OF THE LADAKHI LANGUAGE.

The condition that local allowance should not be paid to members of Settlement Establishment unless they acquire a working knowledge of the Ladakhi Language has had a very salutary effect in inducing Karkuns and inspecting officers to learn the language of the country within a few months. This has dispensed with the necessity of employing a large establishment of native Jaribkashes to assist the Karkuns, as was done in Baltistan. Also no mistakes have been made in recording occupancy and tenant rights etc. which are frequently found, if the Karkuns are ignorant of the local language.

20.—GRANT OF TRAVELLING ALLOWANCE TO SETTLEMENT NAIB-TAHSILDARS.

In view of the special circumstances of this country and heavy strain of *Begar* it was laid down by the Settlement Commissioner in his original proposals, that free transport should not be allowed to Settlement Naib-Tahsildars, who should receive travelling expenses according to rules. These instructions have been strictly followed, and carriage invariably paid by Naib-Tahsildars, but travelling allowance bills of the Naib-Tahsildars have not yet received formal sanction. I would request favour of early orders to remove this inconvenience.

21.—MANAGEMENT OF FUNDS.

I may take this opportunity to bring it to the notice of the higher authorities that the funds allowed for this settlement have been managed with strict economy and out of total grant of Rs. 59,126 for the last year Rs. 42,736-4-3 only were actually expended, which resulted in a saving of Rs. 16,389-11-9 during the last year.

CHAPTER IV.—GENERAL CONDITIONS.

21.—CROPS.

The Principal Rabi crops are :—

- (i) Giram (Sherok in Ladakhi) is a species of barley and is the hardiest crop. It flourishes up to a height of 14,500 feet above the sea. In a few villages it has been seen to grow up to a height of even 15,000 feet but the crop is uncertain in such villages. In Do-Fasli villages it is followed by Trumba or vegetables. Giram is the principal food grain and is considered more substantial than wheat or barley.
- (ii) Wheat (To in Ladakhi) flourishes well up to a height of 12,000 feet and has been seen to grow up to 12,800 feet. It is not followed by another crop within the year.
- (iii) Barley (Soa in Ladakhi) grows at about the same height as wheat.
- (iv) Peas (Shauma in Ladakhi) It is a fairly hardy crop and flourishes in the higher as well as in the lower valleys.
- (v) OI is the favourite fodder crop of this country and is once sown after a long term of years. Masur, sarshaf and tobacco are also grown to a small extent. Potatoes are produced in a few fields in Leh. Trumba is the only Kharif crop and is only grown in a few villages in the lower parts of the Indus and Nubra valleys.

22.—AGRICULTURAL EXPERIMENTS.

Experiments have been made on a small scale by Mr. Peter, Superintendent Moravian Mission and myself which show, that potatoes, rye, and root crops such as radish, carrots, turnips and most of the vegetables can be successfully grown in Leh. Gram, Maki and melons do not thrive well and fail to mature.

23.—FRUIT.

Apples and apricots are grown in some villages in lower portions of the Nubra and Indus valleys. The fruit is generally inferior to that of Kashmir and Baltistan but some income is made by sale of fruit in the villages in the Indus Valley, up to Nimo. There are a few quinces, walnuts, grapes, mulberries and only two pomegranate trees in the lower villages, but these are very inferior and little income is made. The trees have been carefully enumerated and income from fruit will be taken into consideration in fixing the village Jamas. But as fruit is grown in this country to a very limited extent and no separate assessment has hitherto been placed on fruits, I am not in favour of separately assessing the fruit as it is likely to have a very discouraging effect on fruit growing, which is still in its infancy in this country.

24.—CLASSIFICATION OF VILLAGES.

The present division of the Tahsil into Ilakas named in 3rd paragraph of this report, is only made for administration purposes and gives groups of villages linked together to form a Kardari, but this division is quite useless for assessment purposes; not only the agricultural conditions prevailing in adjacent villages are often different, but even the various Muhallas forming one village have nothing in common except their irrigation Nullah. There are villages of which the principal Muhallas enjoy a fairly mild climate, whereas the upper Muhallas extend to a height of 13,000 or 14,000 feet and suffer from all the disadvantages of severe cold. Altitude may be taken as the chief factor among the agricultural conditions of the villages, but height alone can not be trusted as the sole guide, for there are village like Nima and Mut above a height of 14,000 feet, which produce excellent crops inspite of a very cold climate, while there are villages like Lagjun and Partabpura, which enjoy a mild climate at a height of about 10,500 feet but the crops are generally precarious. The chief causes affecting productive capacity of a village in this Ilaka may be summarized as follows :—

- (i) *Altitude*.—Giram is the only crop of the higher villages, while wheat and fruit trees are successfully grown in lower valleys.
- (ii) *Irrigation*.—No crop can be successfully grown even in the lowest villages without sufficient water-supply and hence the prosperity of a village depends to a great extent on the amount of its water-supply.
- (iii) *Manure*.—Productive capacity of villages is considerably enhanced by means of manure, which depends on the number of live stock owned by a village. Manure is indispensable in this Ilaka for cultivation.
- (iv) *Lie of the land*.—Villages situated in open valleys, receiving more of sunlight and less of strong winds and having level and broad fields are much better off than Nullah villages, which have generally small terraced fields over-shadowed by high cliffs shutting out light and letting in strong currents of extremely cold winds.
- (v) *Intrinsic properties of soil*.—It is commonly believed by the Zamindars that excellent crops can be produced in any soil, provided the water-supply is plentiful and manure sufficient. This is true to a great extent but there are some villages in which crops do not thrive well, owing to the existence of a sour and stiff clay, while there are others which suffer from too much coarse sand and shingle.

In view of the above conditions, it seems useless to attempt a classification of circles in this country, as the conditions vary from village to village, and no general rates can safely be applied to any group of villages. There are some villages, which have a similarity of general conditions, but their number is very small and even in these villages, the higher Muhallas possess entirely different characteristics. Hence I propose to divide the villages into the following four classes :—

1st class.—The lower villages situated in the open Indus and Nubra valleys producing two crops in the year or one good crop followed by vegetables etc. and growing fruit to some extent.

2nd class.—Yakfasli villages usually higher than first class, but situated in open valleys and growing all the principal crops.

3rd class.—Villages usually situated in the Nullahs having a very cold climate, but producing fairly certain crop of giram and barley.

Fourth class.—Highest villages situated near the sources of the Nullahs and having an uncertain and precarious crop of giram which fails to mature in years of excessive cold or early snow-fall.

The classification of villages has not been based merely on the above definitions but the productive capacity of a village has been the first consideration. Also with a view to arrive at a fair assessment, I propose to classify each Muhalla according to its productive capacity, as it would be obviously unfair to place the same rates on a prosperous village at the mouth of a Nullah as on a high Muhalla near the source of the Nullah which has been linked to the prosperous village merely for administrative or other reasons. The adoption of the same rates for different Muhallas of the same villages resulted in many serious complaints in Baltistan and I am careful not to repeat the same experiment here. The fairness of assessments in this country will depend on careful village assessments. I have always borne this fact in mind and tried to make my village inspections as complete as possible. I may note here that the existing classification of villages is unsatisfactory as in some cases a higher *parta* has been placed on some poor villages at the head of the Nullahs than that on the prosperous villages in the open valley.

25.—CLASSIFICATION OF SOILS.

I have fully explained the classification of soil in the printed Hadyat, a copy of which was submitted to the Settlement Commissioner in Maghar 1963. Soon after my arrival here I went into the question very carefully and found that classification of soil adopted in 1942 was not quite suitable. No

definition of this classification is traceable in papers of 1942, but it was followed by Mr. Clarke, who briefly noted on the classes of soils as follows :—

- I. Nazhing—corresponding to the Muljhung of Baltistan (Puja is done at the time of sowing).
- II. Kungjhing—corresponds to barsud and differs little, if at all, from Nazhing. It is a little further from the Abadi and Puja is not done at sowing time.
- III. Barzhing—corresponds in quality to 'Bruk' but land under this class is also found in the low lying villages.
- IV. Thazhing.—Distant and poor land slightly better than the "dass" of Baltistan.
- V. Ulthang—fodder land—the 'UI' of Baltistan. The class Kungjhing in the above classification is not locally recognised or understood and seems an innovation of the Settlement Establishment of 1942. The remaining five classes have been adopted by me with some slight modifications.

The classification proposed by me is as follows :—

- I. Mazhing (good soil) sacred field of each Assami, where manure is first stored and sowing is attended with certain religious ceremonies.
- II. Barzhing (middle soil) so called because in capacity it is considered midway between mazing and thazhing. It is situated at a convenient distance from the village and is well manured and looked after.
- III. Thazhing (distant land) situated at an inconvenient distance from the village site and insufficiently manured.
- IV. Chhas—is a vegetable plot near the house and corresponds to 'sagzar' of Kashmir but such plots are seen in a very few villages and probably the area returned as Chhas will be insignificant.
- V. Sasik—is a poor class of soil, which is left fallow in certain years to recoup its strength by means of spontaneous growth of grass &c., which is allowed to decay and serve as manure. I am inclined to think that very small area has been returned as sasik. I have called for reports showing the extent of such area and if it turns out to be insignificant. I propose to eliminate this class and treat the soil as Thazhing. I may note here that the soil entries made in 1942 have been found mostly incorrect, and every care has been taken in this settlement to correctly record the different soils. In some cases it has been found difficult to draw a line between Barzhing and Thazhing, but as a rule land shown as Thazhing is inferior to that recorded as Barzhing.
- VI. Olthang—is the land, which grows Ol, a kind of lucern.
- VII. Bagh.—Land under fruit trees is recorded as Bagh according to the class to which it belongs such as Bagh Barzhing, Bagh Thazhing. The classes of uncultivated land are also defined in paragraph 28th of Hadayat-i-Paimaish and need not be recapitulated here.

26.—PRICES.

I am not yet in a position to report the prices to be adopted for calculation of half net assets rates as reports have not yet been received from the various trade centres appointed in this Tahsil for purposes of enquiries into prevailing agricultural prices.

The following centres were appointed by Notification No. 17, dated the 24th Poh 1963 :—

No.	Ilaka.	Trade centre.
1	Nubra ...	Hunder.
2	Do. ...	Panamik.
3	Ladakh ...	Leh.
4	Karbochan ...	Karbochan.
5	Do. ...	Khalsi.
6	Lamaura ...	Lamaura.
7	Rung ...	Kungiam.
8	Giah ...	Giah.
9	Pantse ..	Pantse.

These orders were passed on the report of the local Tahsildar, who was not well acquainted with economic conditions of the distant Ilakas of this Tahsil. These centres have now been carefully revised and the following alterations made in the above list :—

No.	Ilakas.	Trade centres.
<i>Ladakh Tahsil.</i>		
9	Chimre ...	Chimre.
10	Tanktse ...	Durgab.
11	Do.	Shushal
12	Ruksha ...	Samad Rukchan.
<i>Kargil Tahsil.</i>		
13	Zanskar ...	Padam.

Numbers 1 to 8 of the notification are suitable and have been retained. The centres now proposed are suitable and should remain in force for purposes of inquiry into prices in future.

I shall separately refer the question of prices to the Settlement Commissioner and shall fully discuss the subject in the assessment report. But I may remark at present that real agricultural prices do not practically exist in this Ilaka. By far the largest part of the surplus grain is sold to traders from Chang Thang in Lhasa in exchange for salt and wool, while the remainder is paid into the State treasury as revenue in kind. Some amount goes to petty traders of Leh and elsewhere, who advance money in winter and realize grain at the harvest time usually at the rate of 20 seers per rupee. This advance rate varies from 24 to 36 seers in Zanskar. In the town of Leh, the market is extremely uncertain and always fluctuating. During the last year, the rates for wheat and giram in Leh have varied from 16 to 6 seers per rupee; but these rates are devised to meet fitful and uncertain requirements of the hour and are not regulated by a settled course of economic conditions, as there are no grain dealers in the country and the requirements of traders and visitors etc. are supplied by the State. From the

above it is evident that the agriculturists derive little benefit from the high prices prevailing at Leh and hence these prices can not be adopted for assessment purposes.

27.—IRRIGATION

It is impossible to grow any crop or trees in this country without irrigation which is mostly supplied by the side Nullahs, as the river beds being too low, irrigation has not been possible from the rivers except in a few villages. There are large tracts of uncultivated land in the Indus and Nubra valleys, which could easily be brought under cultivation, if sufficient water-supply were available. As considerable expenditure is incurred every year by importing grain from Kashmir and Baltistan to meet the increasing requirements of the Treaty Road, it is essential to take early measures for extension of cultivation in this country. Since my arrival here I have been busy in taking notes of all possible irrigation schemes and with the help of a local overseer in the employ of the British Joint Commissioner, I have drawn up a long list of irrigation schemes. I attach herewith Statement No. 9 showing the area selected and the approximate amount of expenditure required. These schemes give a total cost of Rs. 9,850 and can not apparently be taken up at once as the Kurba Thang project in Kargil will require a good deal of attention and expenditure. I have, therefore, recommended Projects No. 2 to 4 with an estimated cost of Rs. 6,000 for the next year. The proposal has separately been submitted for orders to the Revenue Minister.

28.—NATURAL PRODUCE AND MINERALS.

None of the medicinal herbs like Zira and Banafsha of Kashmir can flourish in this country. Shora (white nitre) exists in the plateaus near Shushal. Gold-washing is also done to small extent on the Zanskar river near Chilling Sumda and on the Indus river from Saspul to Dah. There is a mine of Nakchur, (a dyeng material) the average income of which is about Rs. 40 per mensem. There is also an iron mine in Charasa in Nubra, which was worked in the time of Budh Rajas but has long since been closed by the upper rock having collapsed and filled up the mine. Copper was also produced in former times in Chilling Sumda. It might be worth while to obtain expert opinion as to the possibility of opening up the Charasa iron mine and working the copper bed of Chilling Sumda. There is also a sulphur mine in Pugah, which has not been worked for some years. Sohaga (borax) is also collected near the same mine. Phulli (soda) is gathered from the plain below Panamik and has been a source of income to the State. The average income being about Rs. 2,114 per annum, during the last ten years, but Phulli has been beaten in the Kashmir markets by soda imported from the Punjab and the present contractor has been unable to dispose of his stock of 'phulli'. The Sohaga and Phulli contracts have always been a source of great trouble to the Zamindars, who are collected in large numbers to gather the produce and nothing has practically been paid for this labour except in the last year. Phulli is delivered to the contractor at Leh and Zamindars have been held responsible for its safe carriage from Panamik to Leh and made to pay for the shortage which inevitably results owing to Phulli getting dried in transit. But apparently the matter has never been brought to the notice of the higher authorities.

I would propose that Zamindars should, in future, be paid for the collection of the commodities. As to carriage of 'phulli' I would propose that the contract may be given in future on the condition that Phulli is delivered to the contractor in Panamik, but if no bidders are forthcoming on this condition and it is considered desirable to arrange carriage by means of Zamindars, the *Moharrir Kans* should, in future, be held responsible for safe carriage from Panamik to Leh and any shortage not exceeding the usual scale should be written off.

29.—TENURES AND TENANCY RULES.

The tenures locally known are:—

1. *Zhindak* or land-holder, who holds land under the state on payment of fixed land revenue.
2. The classes of tenants are as follows:—
 - (a) *Shaspa*, who holds land on a fixed rent under an express or implied agreement. Such tenants can not be ejected and the right is usually acknowledged in the agreements by means of such phrases “the tenant shall not be ejected till lakes get dried and crows become white.”
 - (b) *Shastan*, who takes land on payment of a *nazrana* and a fixed rent to be paid in future. A *Shastan* has a similar status as a *Shaspa*.
 - (c) *Phitma*, is a tenant who holds land on payment of half ‘*batai*.’ Expenses of cultivation are borne by the tenant. He can not be considered an occupancy tenant in the absence of an agreement or clear understanding between the parties.
 - (d) *Lochat*, is a tenant who holds land on payment of a lump sum or a fixed annual rent for a term of years at the expiration of which his tenancy comes to an end.
 - (e) *Chhanpa*, who cultivates land as a labourer and makes over the produce to the landlord, receiving his remuneration in cash, or kind, or keeping the produce of certain fields for his maintenance.
3. It has already been decided by the State Council Resolution No. 61, dated 19th September 1903, that as in Kashmir and Baltistan, the proprietary rights in Ladakh will be considered to be vested in the Durbar. Since the commencement of Settlement operations here, I have received no petitions praying for proprietary rights nor is there any record in the Wazarat Office to show a similar claim. The conditions of Baltistan and Ladakh are similar, and the proprietary rights originally enjoyed by the local Rajas may be considered to have passed with the conquest of these Ilakas to the Kashmir State. Also as the status of an Assami given to the occupants of land in Kashmir and Baltistan carries all the privileges that a civilized Government can confer on the agricultural classes, the Zamindars of Ladakh have no reason to be dissatisfied with the status of an Assami, which has been given to them in the present Settlement. I may note here that the status of an Assami is distinctly superior to that of a tenant and hence the status of an Assami should not be defined in terms of a tenant in the Settlement records.
4. In the measurement papers prepared in 1942 entries regarding tenures were made in terms of the Punjab Settlements without any proper authority from the Durbar; but as these records were never sanctioned by higher authorities, it seems unnecessary to discuss them. After the *girdawri* of 1958 a *jamabandi* was prepared and the terms of ‘*haq assami*’ and ‘*kasht-mustakil*’ were used in the *misl-i-haqiat*. But no tenancy rules were proposed by the Settlement Officer nor formal sanction of the higher authorities was obtained. Probably Mr. Clarke thought it sufficient to apply to Ladakh the orders passed on tenancy rules of Baltistan. However, as the present Settlement of Ladakh and Zaskar has been considered as the first regular Settlement, I think it necessary to have a simple set of Tenancy

rules to regulate the procedure adopted in this Settlement. The Zanskar Ilaka has never been settled, but these rules have been so framed that some of the provisions will be applicable to the conditions of that Ilaka.

5. *Proposed Tenancy Rules---*

(i) Haq-i-assami shall be bestowed in the present Settlement on:---

- (a) Every land-holder in Ladakh who himself or through his predecessors has cultivated 'Khalsa' lands continually since 1958 and whose name or that of his predecessor was entered as an Assami in the record of that year.
- (b) Every land-holder, who subsequent to the Girdawari of Ladakh in 1958, has reclaimed land from Banjar Khalsa or Shamlat-Deh and is found at the present Settlement to be in cultivating possession of the same.
- (c) Every land-holder in Ladakh to whom any area has been transferred since Sambat 1958, by any mutation sanctioned by competent authority provided there is nothing irregular or contrary to rules in such mutation.
- (d) Every land-holder in Ladakh found at the present Settlement, in cultivating possession of Shamlat-Deh entered as cultivated land in the records of 1958, provided that the cultivator himself is not unwilling to undertake the responsibility or his title to be given Haq Assami in such land is not disputed by other Assamis of the village.

NOTE—In a few cases inferior land is held jointly by villagers as Shamlat, and cultivated in turn, by the Assamis who are by no means anxious to be given Assami rights in such lands. In such cases entry of Shamlat has been allowed to stand and the cultivator shown as Kashtkar.

- (e) Every hereditary land-holder in Zanskar, who holds state land on payment of fixed revenue and whose name or that of his predecessor is shown in the Khatabahi of the village.

NOTE—The only record prepared at present for Zanskar is a Khatabahi kept by the Patwari.

- (f) Every land-holder found at the present Settlement in cultivating possession of Khalsa land (irrespective of the length of such possession) and paying fixed revenue in respect of such land, provided his title to be recorded as an Assami in respect of the same is not disputed.

NOTE—As land is not much valued in some parts of this country, it happens sometimes that an Assami abandons his holding and decamps without notice, when the land is made over by local revenue officers and even village officers to other Zamindars of the village who undertake the responsibility to pay the revenue. To meet such and similar other cases of rightful possession, it is to the interest of the Durbar to bestow Assami rights on cultivators, regardless of the length of such tenure.

- (g) Occupants of Banjar Kadim, Safedazar, Bedzar or Naskor areas, whose possession of such areas is admitted by the villagers and proved by enclosures, fences or other evident signs of occupation.

(ii) Haq Kasht-Mustaqil shall be bestowed at the present Settlement on:—

- (a) All tenants cultivating lands under Assamis, Chakdar Assamis or assignees of revenue, whose names or those of their predecessors were entered in the records of 1942, as cultivating those lands and who are found at the present measurements to have since continuously cultivated such lands.
- (b) All tenants who have acquired Haq Kasht-Mustaqil by virtue of agreement or distinct usage capable of being proved or by an order or decree of competent court, unless there be any thing repugnant in such agreements, orders or decree necessitating a further enquiry into the rights of such tenants.

(c) All tenants found at the present Settlement to have been in continuous possession of their tenancies from a period of not less than 12 years preceding the date of this Settlement paying a fixed rent in cash or in kind or rendering service in lieu of rent.

(iii) Exceptions :—

(a) A tenant shall not be deemed to be entitled to Assami rights or Haq Kasht Mustaqil in respect of groves, gardens or orchards belonging to the State.

(b) No one cultivating lands merely as a Chunpa or servant of the Assami shall be deemed to have acquired Haq Kasht Mustaqil in such lands.

(c) The bestowal of Haq Kasht Mustaqil will not affect the rent at present paid.

(d) Tenancies interrupted by ejectment are continuous within the meaning of these rules; similarly exchanges of fields voluntary or otherwise are not breaches of continuous tenures.

(e) Nothing contained in the preceding rules shall preclude the Settlement Officer from using his discretion in restoring rights claimed in whole or in part or rejecting the claim entirely if it appears inequitable or incompatible with the existing usage of the country.

(iv) Notwithstanding any thing contained in Revenue Circular No. 51, dated 27th Maghar 1946, any person wrongfully dispossessed of his holding, may, during the progress of Settlement operations claim to be reinstated in cultivating possession of the land from which he has wrongfully been dispossessed if his ejectment did not take place more than 12 years ago.

(v) All tenants who can not prove a right of occupancy are tenants at will.

6. *Tanqih haquq-i-muzarian* is prepared in this Settlement. The Settlement Tahsildar enquires about such tenure in the presence of Assamis, tenants, Lambardars, etc., and then writes up his orders in the column prescribed for the purpose. His orders are appealable to the Settlement Officer. But no appeals have been instituted as the Assamis do not generally object to grant of Haq Kasht-Mustaqil to deserving tenants.

CHAPTER VI.—MATTERS RELATING TO ASSESSMENT.

30.—CURRENT ASSESSMENT.

I am not yet in a position to submit definite proposals regarding revenue rates which will be fully discussed in the Assessment report. But I have finished my village inspections and have made careful enquiries in each village regarding general agricultural conditions. The rates of the current assessment are undoubtedly high, when compared with those sanctioned for Kargil and Skardu Tahsils; but the assessment does not seem excessive for the following reasons:—

- (a) The Ladakhis are admittedly more prosperous than their Balti neighbours which is due, among other causes, to their earning a good deal of money from carriage. It is commonly believed that villages near the Treaty Road pay most of their land revenue from their earnings from this source.
- (b) Cultivation in Ladakh is easier than in Baltistan, where the small terraced fields require much greater labour and attention; while a large number of principal villages in Ladakh, especially those situated in the Indus Valley, have broad level fields.
- (c) No difficulty has been experienced in realization of the current demand. Suspension or remission of land revenue have never been applied for, the amount of actual revenue arrears is very small, and arrears of one year are usually paid in the next. For the above reasons I am inclined to agree with the opinion expressed by the Settlement Commissioner in his general note dated 13th August 1905, which runs as follows:—

“From the little that I have seen of the country I consider that high as the assessment undoubtedly is compared with assessments elsewhere no very large reduction will be necessary. The people have the appearance of prosperity. Captain Patterson, British Joint Commissioner, who has seen nearly the whole of the Tahsil, is strongly of opinion that the average condition of the people is very good.”

I may add here that in some Nullah villages the existing *parta* is unduly high and reduction will be proposed for such villages.

31.—REVENUE IN KIND.

Of the current land revenue Rs. 8,970-2-3 is realized in kind as per details below:—

	Mds.	Sr.	Ch.		Rs.	A.	P.
Grains	...	3096	5	0 @ 20 seers per rupee	...	6,192	4 0
Fuel	...	5555	31	4 @ 2 maunds per ..	...	2,777	14 3
				Total	...	8,970	2 3

The amount of revenue grain in 1955 was 4732 maunds 5 seers. Thus a reduction of 1636 maunds was made in 1959 by Settlement Officer, Ladakh and Baltistan, apparently without making an estimate of probable grain requirements. Statement No. 10 is attached showing annual expenditure of grain since 1959. The average expenditure comes to 7969 maunds 5 seers 12 chatanks which far exceeds the fixed revenue in kind. The deficiency has hitherto been made up by purchasing “*kharidi*” grain at the rate of 16 seers per rupee. Grain has also been imported from Kashmir in large quantities. In view of further increase in trade, it seems desirable to provide for an average expenditure of 9,000 maunds, but the limited produce of the country can not bear this heavy expenditure, and the kind revenue should only be fixed after carefully estimating the total grain produce, and the approximate amount required for local consumption. This will be done in the present Settlement, when, at the conclusion of the present measurements, the necessary data will be available for the purposes of the above estimates. Similar estimates will be prepared of the average produce and requirements of every

village and the revenue in kind will be proposed accordingly. In my opinion the present Jinsi revenue is too low and an enhancement of two or three thousand maunds can fairly be taken ; but there will still be a deficiency of about 3000 maunds which can be made up from the adjoining villages of Chorabat and Chaktan Ilakas of Skardu and Kargil Tahsils respectively, as the grain expenditure is not so heavy in these two Tahsils, and a good deal of surplus grain has been transferred in past years from these Tahsils to strengthen Ladakh granaries. But the above is only a rough forecast and I do not propose to take any action regarding the two Ilakas above mentioned till the proposed Girdawari of Kargil and Skardu Tahsils is carried out by Settlement Establishment. The amount of firewood now taken seems sufficient for ordinary local requirements.

32.—GRAZING FEES.

The history of Grazing fees in Ladakh is an anomaly. The circumstances of this tax are stated at full length in Mr. Clarke's report which forms preamble of the State Council Resolution No. 23, dated 25th October 1901. I need not repeat all the particulars, but the principal points may be * summarized as below :—

The Grazing Fees were formerly taken in kind in the shape of Charas, Postins, sheep and yaks. In 1941 Zar-i-Markab was realized to the amount of Rs. 704-12-3. This was apparently a tax on transport animals and besides this there was an item of Rs. 13 shown as grazing fees in Nubra.

A number of State sheep was maintained by villagers in Tanktse and Rukshu Ilakas for which annas 8 per head per annum was realized under the head Qimat-i-Gosfandan, the total amount in 1941 was Rs. 540-11-6. This system continued in force till 1953, when on the report of the then Wazir-i-Wazarat a Moharrir Kahcharai was sent up by the Governor Jammu.

This Moharrir carried out enumeration of the live stock and assessed grazing fees in Nubra, Khardung, Tanktse and Rukshu Ilakas. Since then Kahcharai fees continued to be realized on annual enumeration. The Moharrir apparently worked under the orders of the Governor of Jammu and no papers are available showing his enumeration or assessments, nor is it known why other Ilakas were not treated in the same manner. In 1958 the Kahcharai fees amounted to Rs. 3,784-4-0. In the report referred to above Mr. Clarke proposed to abolish the Kahcharai dues hitherto realized and asked for permission to take into account the grazing facilities in fixing his village assessments. This proposal was accepted by the State Council resolution above quoted. But the orders were apparently cancelled in the following year, and Mr. Clarke was directed by the Settlement Commissioner in his telegram No. 1756, dated the 30th September 1902, to keep the grazing fees apart. The above order is referred to in Mr. Clarke's report on Ladakh assessments, but no papers on the subject are available in Wazarat Office. Mr. Clarke fixed the grazing fees demand at Rs. 3,317-10-6 for Nubra, Khardung, Tanktse and Rupshu Ilakas. Statement No. 11 is attached showing for each village the Kahcharai demand of Sambat 1958, as compared with that of 1959, which was fixed by Mr. Clarke. It is noted in his Assessment report that "column No. 15 (fixing grazing fees) is for many villages blank. In these cases grazing fees were included in the assessment as in the Kargil Tehsil." But the revenue register bears no trace of grazing fees having been included in the village assessments. The present Kahcharai assessment is certainly unfair and most unreasonably distributed. No fees are taken in any of the prosperous villages along the Indus Valley. The grazing areas in Rupshu, Tanktse and Nubra are comparatively extensive, but all the villages in the Central Ladakh have similar nullahs for grazing purposes. It might be urged that the villages in Central Ladakh deserve special consideration in view of their services in connection with the Treaty Road. But similar services are rendered by villages in Nubra on whom the incidence of Kahcharai is very heavy. Again the villages in Tanktse and Rupshu Ilakas have to supply transport for the Lhasa Missions. At all events

* NOTE.—The figures have been taken from the Wazarat registers.

the State is fairly entitled to receive grazing dues from every Ilaka in this Tehsil as well as from Zanskar, in view for the grazing done in long nallahs and hill sides for which no revenue is taken. At the same time the grazing found in this country is far inferior to that available in Kashmir and other parts of the State, besides which the compulsory service taken for the purposes of the Treaty Road and Lhasa Missions etc. has to be taken into consideration. For the above reasons, I am of opinion that the rates of grazing fees here should be lower than those obtaining in other parts of the State. At the conclusion of the present Malshumari, I shall formulate my views regarding rates to be adopted for future, and refer the whole question to the Settlement Commissioner before writing my Assessment report. In the meantime I may record my opinion that the system of annual Malshumari causes a good deal of harassment to the people, and gives opportunities for speculation to petty officials. Also enumeration of Yaks and sheep in this country is very difficult, as the animals are not kept in villages during the winter. Hence it is necessary that the demand should be fixed permanently for a term of years. Further particulars will be given in my Assessment report.

33.—RETENTION OF KARDARS.

Lambardar's agency did not practically exist till 1958. The village head-man or Gopa was changed from year to year by the villagers themselves. The only remuneration given to Gopa was the remission of fuel and grass revenue of his holding. All important services connected with village administration were rendered by Kardars, who were handsomely paid for their services. Mr. Clarke recommended retention of Kardars and appointment of Lambardars, whose remuneration was fixed at Rs. 2½ per cent. In view of the revenue demand being high, it was proposed that Kardars and Lambardars should be paid from the State Treasury. A set of rules was also proposed for appointment, dismissal, etc., of Lambardars.

These proposals were sanctioned by the State Council Resolution No. 36. dated 13th November 1901, but the retention of Kardars was allowed only as a tentative measure, and the Settlement Officer was asked to send up a report as to the duties etc. to be performed by Kardars. In the meantime the Settlement operations had come to an end, and the Wazir-i-Wazarat was called upon to submit the above report. After consulting the British Joint Commissioner a lengthy report was sent up by the Wazir to the effect that Lambardars Agency was not sufficiently influential and efficient and that all important services connected with judicial and revenue administration, supply of transport and provisions etc. were rendered by the Kardars, whose permanent retention was strongly advocated. But the then Settlement Commissioner was in favor of giving better opportunities to the Lambardars, and it was suggested by him that vacancies among Kardars should be filled up by appointing influential Lambardars as Zaildar or Ala Lambardars. This suggestion was adopted by the State Council in their Resolution No. 14, dated the 26th January 1903 and the retention of Kardars was sanctioned subject to the above condition.

I take this opportunity to submit that the above condition is unsuitable, as the permanent retention of Kardars seems indispensable. The Lambardars belong to a distinctly inferior class of peasants and have no real influence, intelligence or education, and this class can not be expected to replace Kardars, who represent the gentry and in some cases the nobility of the country. They have real influence in the country, and are generally men of education and intelligence. Their retention is also necessary for political reasons as some of them possess considerable influence in the distant borders of the State. For these reasons I would strongly recommend permanent retention of Kardars, the vacancies among them being filled up by selection of suitable candidates from their own class in accordance with the rules governing the appointment of Zaildars in the Punjab. It seems unnecessary to introduce the foreign terms Zaildars and Ala Lambardars in this country, as the term Kardar is well understood and appreciated in this Tahsil.

A list is attached herewith as Statement No. 12, giving the emoluments of the present Kardars. It will be seen that the remuneration given to Kardars of Hemi, Leh and Nubra is unduly high as compared with the scale of pay given to Zaildars in Kashmir, and the total amount of stipends given to Kardars comes to a little over two per cent. on the land revenue, which exceeds the scale of remuneration usually given to Zaildars. But in view of the important political and administrative services rendered by this class I would recommend continuance of their stipends during their life time. Separate proposals will be submitted regarding Kardari circles in which grades of Kardars will be laid down showing amount of stipend proposed for each grade. After the death of any of the present Kardars his successor should only be allowed the pay of his grade.

34.—LAMBARDARS.

The foregoing paragraph will show that Lambardars are at present given a Pachotra of $2\frac{1}{3}\%$ on the land revenue. This is a most inadequate return for their services which are not confined to the collection of land revenue, but they have to bear the brunt of inevitable Begar, to arrange collection of revenue in kind and to supply provisions to visitors, etc. The office of a Lambardar is not sought after and is rather regarded as a form of Karbegar.

The Jama of most villages being small, the Lambardari dues are in most cases below Rs. 10 per annum. Even if the Pachotra were doubled, it cannot be considered a sufficient remuneration for their services. Mr. Clarke recommended that the Lambardari dues be paid in the form of a remission of part or whole of the Lambardar's revenue, the first part to be remitted being the Jinsi demand. This proposal was sanctioned by State Council Resolution No. 36, dated 13th November 1901, but for some reason or other, no effect has been given to the orders regarding remission of the Jinsi demand. I would now recommend that Lambardars may be allowed in future, Pachotra at the rate of 5% on the land revenue of the village and that this Pachotra may be paid in the form proposed by Mr. Clarke. In case the Pachotra exceeds the revenue of a Lambardars holding, the deficiency may be made good from the revenue of the village. There is no Kardar in Zanskar Ilaka, but there is a large number of Lambardars each receiving Rs. 5-4-0 per annum from the State Treasury. But for the reasons already given number of villages in Zanskar has been greatly reduced in the present settlement. As Zanskar forms part of Tahsil Kargil I would recommend that the Pachotra may be given to the newly appointed Lambardars at the rate of 5% sanctioned for the Kargil Tahsil. No other concession is necessary as revenue in kind is not realized from Zanskar. I would further propose appointment of one Zaildar for the Zanskar Ilaka.

35.—PATWAR AGENCY.

The Patwaris are at present paid at an average rate of Rs. 9 per mensem. As the education is backward in this country, few local candidates are forthcoming, while competent men from Kashmir or elsewhere do not care to serve in the severe climate of this frontier on this small pay. The result is that the present Patwar Agency is quite inefficient and the revenue records prepared since 1959 are most unsatisfactory and unreliable. I would, therefore, propose that Patwaris serving in the tract under settlement be allowed the same pay and allowance as Shajra Kashes, as such Patwaris are required to work hard and to pay for supplies like Shajra Kashes. For the Tahsils not under settlement operations I would propose an average pay of Rs. 10 per mensem, which has been sanctioned for Kashmir Province, plus a local allowance of Rs. 4 for foreigners. The local primary schools have shown much increase in the number of scholars since my arrival and local candidates will be forthcoming in a year or two; but provision must be made to attract competent men from Kashmir and elsewhere.

36.—IMPOSITION OF CASSES.

In view of the incidence of the present assessments being already heavy, no cess was imposed during the last revision of assessments in Ladakh. For the same reason I am inclined to propose a full assessment and leave the extra expenditure on village officers to be paid by the State, as this

will be in keeping with the assessment policy hitherto followed in this Tahsil. I also think that the system of making a budget provision for expenditure on Patwar agency ensures better control of the funds by higher authorities and is more suitable for this distant tract than the rough method of setting aside a large sum to be spent at the discretion of the local authorities. If, however, it is decided to keep the cesses separate from the revenue proper, calculations will be made accordingly in the Assessment report.

I may add that the principal roads and particularly the branches of the Treaty Road are maintained at present by the State, while the inter-village communications and the routes to Lhassa are kept in repairs by the villagers. Under the circumstances no road cess need be imposed. Similarly the only school at Leh is maintained at the State expense and as the country is most backward in education, the imposition of School cess is undesirable at the present stage. Patwar and Lambardari cess may, however, be imposed in the Zanskar Ilaka, at the rates sanctioned for the Kargil Tahsil.

37.—ASSESSMENT OF MILLS.

The assessment of mills received but a perfunctory treatment during the last revision of assessments. The only allusion made in the Assessment report to this subject is as follows:—

“ There are 1009 mills in the Tahsil giving an average of 9 per village. Except near Leh and on the Leh trade route the income “is nil.” A total assessment of Rs. 75-14-0 was placed on mills in 17 villages of Nubra, Ladakh and Chachot Ilakas. The following rates have been obtained from Bachh files.

Nubra	...	4, 6 and 12 annas.
Ladakh	...	4 and 6 „
Chachot	...	8 „

These rates were based on the statements of the villages concerned. No assessment was placed on mills in other Ilakas. Since 1958 forty seven mills have been started in the different Ilakas and assessment has been placed on each mill on the Wazir-i-Wazarat's recommendation. The rates on these mills vary from 4 to 8 annas and the total assessment since 1958 amount to Rs. 23-8-0. From the above it will appear that a large number of mills was not assessed in 1958 while assessment has been placed in all Ilakas on mills started since 1958. This inequality of treatment will be removed in the present Settlement. I am making necessary enquiries regarding the cost, income, working period, etc. of the mills in different Ilakas and shall submit my proposals in due course.

38.—REVENUE INSTALMENTS.

I shall submit my proposals regarding revenue instalments in my Assessment report, but I may note here that the instalments now in force are not suitable. These are:—

1st	...	First to end of Bhadon; cash
2nd	...	„ to end of Assoj „
3rd	...	„ Maghar to end of Poh; cash and kind
4th	...	„ to end of Chet; cash.

The first and fourth instalments are apparently unsuitable, the first being too early and the fourth too late.

CHAPTER VII.—MISCELLANEOUS.

39.—*Res* SYSTEM.

Res or *Bari* system is the standing administrative difficulty of this country. A certain number of villages is told off to supply transport at each stage and certain periods are fixed for villages or small groups of villages to maintain a certain number of ponies at each stage. The system has its advantages as well as drawbacks. The villagers undoubtedly earn a good deal of money and in spite of the limited resources of the country, are more prosperous than their *Balti* neighbours but the increasing trade requirements far exceed the limited number of live stock available for transport during certain months in the year. Unfortunately with the increase in trade there has been a corresponding decrease in the number of transport animals, owing to a large number of ponies having died for want of fodder. In some cases ponies have been sold by their owners, who could not resist the temptation when offered a good price. The result is that the number of ponies kept at the stages is very small and quite unable to cope with the rush of traders especially in the month of *Har* and *Sawan*. The traders are thus detained at each stage for some days and persistent complaints reach the higher authorities. At such times of high pressure no regard is paid to the fixed turns and all the adjoining villages are compelled by local authorities to supply necessary transport. Thus the villagers are put to a good deal of expenses and trouble, and the over-worked animals become disabled and unfit for further service. To improve this state of things it is necessary to increase number of transport animals *viz.* ponies and yaks. I tried to induce the *Zamindars* in several villages to purchase ponies but the average *Zamindar* can not afford to do this and almost all the villages have applied for advances to purchase ponies. I have submitted proposals to higher authorities for advancing Rs. 7,500 for the villages on the *Treaty* road and this proposal, if sanctioned, is expected to greatly relieve the situation. I have further proposed that sale of ponies purchased from these advances should be prohibited. At the conclusion of the enumeration of the live-stock, which is being done by the *Settlement Establishment*, I intend to recommend certain concessions regarding grazing fees to be levied on transport animals and in view of these concessions I would propose a prohibition against the sale of such animals, the concession and the prohibition being restricted only to one transport animal per holding. I am not yet in a position to submit detailed proposals, which shall be separately referred to the higher authorities at the conclusion of the present '*Mal Shumari*'. To equalize the strain of transport, it is necessary to issue a notice to the traders leaving *Srinagar* not to come up in very large parties. This and some other similar precautions are being taken by the *British Joint Commissioner*, who is rendering all possible help to improve the present position.

The present *Res* system requires careful consideration and revision. The groups of villages ordered to maintain different stages are unequal in regard to the number of *Assamis* and strength of transport arrivals and hence the incidence of *Begar* is very unevenly distributed among the different villages. Again some groups of villages are required to remain at the stages in their entire strength, which seriously interferes with their agricultural operations. The groups should be so arranged as to enable a certain proportion of villagers to look after their farm work. This is a very important question which I intend to take up separately during the next winter, by which time the necessary data required for the purpose will be available.

40.—EXEMPTION FROM *KAR* BEGAR.

Large exemptions have been given in each village by competent and incompetent authority, some exemptions are enjoyed by *Gunpas* and some leading men of the country under orders of the *Durbar*, others are given by *Wazirs*, *Tahsildars* and even *Kardars*, while a number of village officers and servants are exempted by the villagers themselves. These exemptions hamper the *Res* arrangements by reducing the number of men liable to *Kar begar*, on whom the incidence of *begar* becomes very heavy. Exemption from *Kar begar* is as

important here as exemption from payment of land revenue. Under the circumstances the exemptions given in each village should be carefully examined at the present Settlement and those exempted without sufficient reason should be ordered to give Begar. In my opinion exemption should only be given in the following cases :—

- (a) On production of a Sanad granted by the Durbar.
- (b) In case of Kardars and Lambardars as long as they continue to hold that office.
- (c) In case of widows, infirm old men, minors and persons permanently disabled by disease etc. provided they have no able-bodied male relations living with them and assisting them in agriculture.
- (d) Persons taken into State service should personally be exempted from Begar, but their holdings should remain subject to Begar, unless they prove their inability to manage their holdings by the help of relations and Karindas etc.
- (e) No exemption should in any case be given from common expenses of the village excluding those incurred in supplying labour or transport, unless the person exempted from Kar begar is proved to be too poor to pay such expenses.

NOTE.—These common expenses correspond to the 'Malba' expenditure in the Punjab but are, as a rule, incurred to a much larger extent in this country.

- (f) In case of persons exempted by united consent of the villagers such as Larje (physician) Gara (blacksmith), mon (musician) &c.

I am conducting my enquiries on the above lines and Dehwar lists of exemption are being prepared. On the completion of these enquiries, I propose to issue exemption certificates, naming the persons exempted in each village. I beg to be empowered to issue these certificates and would propose that in future no exemption should be given by local officers below the rank of Wazir-i-Wazarat and that such exemptions should, as a rule, be given in accordance with the above provisions.

41.—NOTICE OF OFFICERS.

In the end I would take this opportunity to bring to the notice of higher authorities the excellent work done by the Assistant Settlement Officer Sardar Thakur Singh and Settlement Tahsildar Pandit Anant Ram, B.A., who have pushed on and supervised the measurement work with great energy and rendered me valuable assistance in all matters connected with Settlement.

KHUSHI MOHAMMAD,

Settlement Officer,

LADAKH.

STATEMENT No. 1.

Showing the amount of Rainfall in Leh during the last four years (1903—1906).

No.	Names of months.	RAIN-FALL IN INCHES.				REMARKS.
		1903.	1904.	1905.	1906.	
1	January29	.08	.60	.16	Snow-fall is converted into rain-fall.
2	February	1.25	...	.16	.07
3	March	1.49	.03	.90	.14	
4	April ... ..	...	.03	.14	.19
5	May .. ..	.16	.14	.32	.04
6	June ... ..	.35	.13	.02	.23
7	July ... ..	.32	1.33	.70	...
8	August ... ..	.06	.21	...	.06
9	September	0.3	.05	.87	.88	
10	October ... ..	...	...	.05	.01
11	November ... ..	...	.01	...	...
12	December ... ..	...	.06	.23	.11
Total of each year ...		3.95	2.07	3.99	1.94	Average rain-fall per year=2.99.

1938.

STATEMENT No. 2.

Particulars.	Amount.		
	Rs.	a.	p.
* Cash	32,892	2	3
* Land Revenue	Rs 26,994	15	9
Miscellaneous	Rs. 5,897	2	6
<i>In kind.</i>			
Grain Mds. Sr. Ch. Md. Sr.	2,577	14	4
2897 27 0 @ 1 5 per rupee	7,045	0	9
Butter 352 10 1½ @ 0 2 "	1,000	0	0
Salt 800 0 0 @ 0 32 "	52	0	0
Shora Kalni 13 0 0 @ Rs. 4 per maund	75	0	0
Hartal 18 30 0 @ " 4 "	5,013	0	0
Fuel and grass 10026 maunds @ 2 maunds per rupee	52	8	0
Charcoal 21 maunds @ 16 seers per rupee	77	3	3
Charu 772 No. @ 10 per rupee	25	0	0
Posteen 25 No. @ 1 each	150	0	0
Sheep 100 No. @ 1-8 "	60	0	0
Yaks 6 No. @ 10 "			
Total Revenue ...	49,019	13	2

NOTE.— Valuation of the Jinsi has not been given in the Dahi Khata; the above has been calculated in the rates then current.

1942.

STATEMENT No. 3.

Particulars.						Amount.		
						Rs.	a.	p.
Cash						41,117	0	9
<i>In kind.</i>								
	Md.	Sr.	Ch.					
Grain	2,897	27	0	@ 45 seer per rupee	...	2,577	14 11	
Butter	352	10	1½	@ 2 " "	...	7,045	0 9	
Salt	800	0	0	@ 32 " "	...	1,000	0 0	
Shora Kalmi	13	0	0	@ Rs 4 per maund	...	52	0 0	
Hartal	18	30	0	@ " 4 " "	...	75	0 0	
Fuel & grass	10,026	0	0	@ 2 maunds per rupee	...	5,013	0 0	
Charcoal	21	0	0	@ 16 seers " "	...	52	8 0	
Charu	No. 772			@ 10 per rupee	...	77	3 3	
Posteen	25			@ Rs. 1 each	...	25	0 0	
Sheep	100			@ " 1-8 "	...	150	0 4	
Yaks	6			@ " 10 "	...	60	0 0	
Total Revenue						57,244	11	8

NOTE.—Valuation of the Jinsi has not been given in the Bahi Khata. The above has been calculated at the rates then current. The previous cash demand was raised by 25 per cent.

1954.

STATEMENT No. 4.

Particulars.										Amount.					
										Rs.	As.	Ps.			
Cash A.				Rs.	40,360	11	3				}	42,413	7	3	
Kharid Revenue grain															
Md.	Srs.	Ch.	Mds.	Srs.											
2309	14	12	@ 1	5	per rupee.										
<i>Details of A.</i>															
Shora Kalmi				Rs.	31	0	0								
					850	5	3								
Cash				Rs.	39,479	6	0								
<i>Instalments.</i>															
1st Sawan and Bhador				Rs.	14,142	15	0								
2nd Assuj and Katik					14,152	15	3								
3rd Maghar and Poh					12,064	13	0								
<i>In kind.</i>															
				Mds.	Srs.	Ch.									
Grain			1,079	29	0	@ 45 seers per rupee		959	12	1					
Salt			40	0	0	@ 32 " "		50	0	0					
Fuel and grass			10,811	6	0	@ 2 maunds "		5,405	9	2					
Charu	No.		772	@ 10	per Rupee			77	3	3					
Posteen			25	@ 1	each			25	0	0					
Sheeps			100	@ 1-8	"			150	0	0					
Yaks			6	@ 10	"			60	0	0					
<i>Rent of State lands.</i>															
				Mds.	Srs.	Ch.									
Grain			1,345	13	4	@ 45 seers per rupee		1,195	13	3					
Grass			121	0	0	@ 2 maunds "		60	8	0					
TOTAL										50,397	5	0			

1955.

STATEMENT No. 5.

Particulars.						Amount.		
						Rs.	a.	p.
Land Revenue Cash	...	...	...	...	...	40,308	12	9
Grazing fee	...	...	...	...	...	1,496	14	0
		<i>In kind.</i>						
		Md.	Sr.	Ch.				
Wheat and Giram	...	4613	20	6 @ 20 seers per rupee	...	9,227	0	3
Barley	...	118	25	0 @ " "	...	237	4	0
Salt (Ladakhi)	...	40	0	0 @ 32 " "	...	50	0	0
Fuel and grass	...	10907	6	0 @ 2 maunds "	...	5,458	9	3
	No.							
Charu	772 @ 10	per rupee	...	...	...	77	3	3
Posteen	25 @ 1	each	...	...	...	25	0	0
Sheep	100 @ 1-8	"	...	...	...	150	0	0
Yaks	6 @ 10	"	...	...	...	60	0	0
Total						57,085	12	6
<i>In addition to above the following were also realized:—</i>								
Contract Borax Mine	...	...	...	31	0	0		
Haq-i-Milkiyat	...	...	...	5	0	0		
Rent of Zimisking	...	...	...	6	0	0		
				Total	42	0	0	

1959.

STATEMENT No. 6.

Particulars.						Amount.		
						Rs.	a.	p.
Cash	...	...	...	...	...	41,166	10	9
Grazing fee	...	...	...	...	...	3,317	10	6
		<i>In kind.</i>						
		Md.	Sr.	Ch.				
Grain	...	3096	5	0 @ 20 seers per rupee	...	6,192	4	0
Fuel	...	5555	31	4 " 2 maunds "	...	2,777	14	3
Total						53,454	7	6
Excluding Rs. 2,234-8-0 Jagir to Raja of Stok &c.								

STATEMENT No. 7

Statement showing Revenue demand of 1963.

Demand.						Rs.	A.	P.
Cash Revenue	...	...	...	...	...	40,016	0	5
Grazing fee	...	...	...	...	...	3,317	10	6
Cost of grain	...	...	...	...	...	6,168	4	6
Do. fuel	...	...	...	...	...	2,763	0	6
Muafist	...	...	...	...	...	9,321	2	9
Total						61,586	2	8
<i>Deduction.</i>								
Muafiat Jagir	...	Rs.	8,084	6	9	9,321	2	9
Lambardar	...	"	1,236	12	0			
Balance creditable in the Treasury	...	...	...	...	...	52,264	15	11

STATEMENT No. 8.

Statement showing percent revenue assignments.

Names of Gunpas.	Area.			Revenue.	REMARKS.	
	Cultivated.	Uncultivated.	Total.			
	K. M.	K. M.	K. M.			
Gunpa-Pitub	1,268 5	1,124 7	2,392 12	395 13 1	} During continuance of religious institutions.	
Do. Gown	1,318 1	1,455 10	2,773 11	379 12 0		
Do. Pitak (Sakti)	92 13	....	92 13	29 0 3	
Do. Rigzing	360 11	157 17	518 8	86 5 1		
Do. Chomre	2,064 2	1,513 19	3,578 1	559 14 3		
Do. Ladakh (Chomo)	1 13	.....	1 13	0 15 3	
Do. Mathu	900 9	1,461 9	2,361 18	231 5 6		
Do. Lamayuru	775 14	770 2	1,495 16	256 1 0		
Do. Tagna	1,126 3	2,333 11	3,459 14	258 11 10		
Do. Lingshit	200 10	89 17	290 7	52 6 6		
Do. Thikai	3,751 16	3,189 7	6,941 3	996 10 3		
Do. Karbuchan	131 11	44 17	176 8	50 11 0		
Do. Lakir	1,355 2	556 3	1,911 5	522 1 3		
Do. Hemi	5,648 4	4,708 14	10,356 18	1,391 11 9		
Do. Tanktsi	7 6	178 16	186 2	1 11 3		
Do. Hemi (Leh)	237 3	58 16	295 19	146 7 6		
Do. Saugar	63 14	.....	63 14	16 6 3	
Mosque (Leh)	13 6	8 9	21 15	5 0 9		
Devi Saheb Flang	3 6	....	3 6	0 13 3	
Do. Leh	.....	.....	.....	8 0 0
Do. Mathu	....	....	....	6 0 0
Do. Leh	.....	8 1	8 1	.....	
Musammam Fatima	278 18	24 16	303 11	69 11 3		} During pleasure of the Durbar.
Rup Chand	251 8	112 6	363 14	70 11 9		
Jagir Raja (Stok)	.....	....	....	1,326 2 4
Cash Mukarrari Do.	.....	.....	.....	251 5 8
Jagir Mathu Cash Mukarrari	.....	.....	.....	980 0 0
Do.	.....	.....	.....	187 8 0
Cash Mukarrari Gunpa Tanktsi	....	....	.....	24 0 0
Kunehak Lama (Gown)	.....	.....	.....	7 0 0
Musammam Palzes	117 10	18 8	135 18	46 13 9	} Enjoyable for life.	
Namgial—Baja Stok	39 13	0 9	40 2	13 12 9		
Total	20,006 17	17,862 14	37,869 11	7,832 6 7		

STATEMENT No. 9.

Irrigation Projects in Ladakh Tahsil.

No.	Name of Tahsil.	Name of Village.	Name of Area.	Source of Canal.	Estimate of produce.	Estimate of area to be irrigated.	Length of Canal.	Estimated cost.	REMARKS.
1	Ladakh	Hanon	Dongy Thang	Donga	2 good crops	40 acres	1½ Mile	1,700	Blasting and walling work.
2	"	Achna Thang	Achna Thang	Achnado	Do.	225 "	2 Miles	3,770	"
3	"	Nurallah	Gapyon Thang	Hemi Shopachan	1 good crop	537½ "	4 Miles	2,000	"
4	"	Bazgo	Laking Thang	Bazgo	Do.	120 "	1 Mile	230	Digging work.
5	"	Nurallah	Rougeche Thong	Hemi	2 good crops	2½ "	½ Mile	30	"
6	Nubra Ladakh	Digar	Lanjog Thang	Digar	1 good crop	31 "	1½ Miles	710	Walling and Digging.
7	"	Tirat	Knik Thang	Tirat	Do.	25 "	½ Mile	610	"
8	"	Samoor	Yuljing Thang	Samoor	Poplar and willow trees	19 "	½ Mile	500	"
9	"	Tirche Askoru	Bilong Thang	Askoru	1 good crop	12½ "	2 Miles	200	Repairs to old canal.
10	"	Kanfok	Yuljing Thang	Handar	Poplar and willow trees	12½ "	2 Miles	300	Digging & walling work.
11	"	Udmaroo	Lagjong	Udmoru	1 good crop	25 "	½ Miles	220	"
12	"	Tulampati	Thang	Tulampati	Do.	25 "	.....	410	"
								9,850	

STATEMENT No. 10.

Statement showing Receipts and Issues of grain in the Ladakh Tahsil for 5 years (from 1959 to 1963).

Particulars.	1959.		1960.		1961.		1962.		1963.		Total of 5 years.		R. MARKS.
	Mds.	Srs. Chs.	Mds.	Srs. Chs.	Mds.	Srs. Chs.	Mds.	Srs. Chs.	Mds.	Srs. Chs.	Mds.	Srs. Chs.	
Land Revenue ...	304	3 6	3096	5 1	2900	0 0	2950	0 0	3070	28 14	15061	37 5	
Khosh Kharid ...	.....		420	29 1	3383	0 0	4800	0 0	2876	25 14	11480	14 15	
Interest on Takavi ...	216	21 0	123	11 0	37	20 0	50	0 0	.....		427	12 0	
Miscellaneous ...	466	5 4	412	28 9	225	0 0	400	0 0	50	0 0	1533	33 13	
Total Receipts ...	3727	29 10	4062	53 11	6545	20 0	8200	0 0	5997	14 12	28523	18 1	
Total Issues (by sale) ...	9516	33 3	7994	22 10	7760	15 0	7578	0 0	6086	38 0	30845	28 13	

Average yearly receipt ... Mds. Srs. Chs. 5704 27 10
 " " " issue ... 7960 5 12

STATEMENT No. 11.

Statement showing the current Kahcharui demand as compared with that of 1958.

1 Serial No.	2 Name of Ilaqa.	3 Name of Village.	4 Current Demand.		5 Demand of 1958.		6 REMARKS.
			Rs.	a. p.	Rs.	a. p.	
1	Tankse	Tankse	85	0 0	86	8 0	
2	Do.	Manj-angam	181	0 0	184	4 0	
3	Do.	Durgob	100	0 0	1 5	3 0	
4	Do.	Schukul	90	0 0	90	4 0	
5	Hemi	Hemi	633	4 0	1,100	0 0	
6	Tankse	Kargiam	210	0 0	209	3 0	
7	Hemi	Nima-Matu	272	0 0	300	8 0	
8	Kopshu	Kopshu	824	6 0	616	14 0	
9	Khardung	Khardung	114	0 0	113	9 0	
10	Do.	Digar	48	0 0	47	10 0	
11	Do.	Khalsar	9	0 0	9	5 0	
12	Do.	Khims-Khimro	30	0 0	53	7 0	
13	Do.	Largep	.....		29	5 0	
14	Do.	Tanyar	30	0 0	33	10 0	
15	Nubra	Tarena	20	0 0	19	4 0	
16	Do.	Koru	10	0 0	14	10 0	
17	Do.	Ulmara	40	0 0	43	12 0	
18	Do.	Wamsistan	10	0 0	23	5 0	
19	Do.	Hudri	18	0 0	18	2 0	
20	Do.	Begdung	10	0 0	22	14 0	
21	Do.	Fatabpur	7	0 0	7	1 0	
22	Do.	Hondarduok	80	0 0	21	11 0	
23	Do.	Hudar	96	0 0	96	2 0	
24	Do.	Kanfok	18	0 0	18	15 0	
25	Do.	Diskic	100	0 0	124	12 0	
26	Do.	Knemi	39	0 0	39	0 0	
27	Do.	Kubil	77	0 0	77	1 0	
28	Do.	Panatik	66	0 0	66	2 0	
29	Do.	Charasa	25	0 0	83	5 0	
30	Do.	Chasau	.....		28	5 0	
31	Do.	Tigor	30	0 0	37	4 0	
32	Do.	Samur	85	0 0	35	2 0	
33	Do.	Lagjun	60	0 0	21	11 0	
34	Do.	Tirat	.....		31	1 0	
35	Do.	Chhati	.....		25	3 0	
		TOTAL	3,317	10 6	3,684	4 0	

STATEMENT No. 12.

List of Kardars in Ladakh Tahsil.

Serial No.	Name of Kardar.	Ilaqa.	Amount of pay.	REMARKS.
1	Ghulam Rusul	Nubra	148 0 0	
2	Sanam Durjai	Khardong	33 3 0	
3	Hira Man	Tankse	88 12 0	
4	Hemi Chakzod	Himi	212 8 0	
5	Munshi Tundup	Chachot	126 4 0	
6	Kalon Lubzang Chawang	Ch	151 9 6	
7	Roop Chand	Nimo	52 1 0	
8	Chbispal	Alchi—Saspulla	51 3 0	
9	Kondup Tashi	Timgam	73 15 6	
10	Sohnu	Kirbuan	77 11 0	
11	Achon	Lamayuru	50 13 6	
12	Khazana	Ruksho	61 15 0	
		TOTAL Rs.	1,128 0 0	

ASSESSMENT REPORT

OF

LADAKH TAHSIL.

Introduction.—I submitted a combined Preliminary Report for the Ladakh Tahsil and the Zanskar Ilaka of Tahsil Kargil, and it was intended to write one Assessment Report for both the tracts. But the progress of the measurements was stopped in the Zanskar Ilaka in the month of Assuj last year owing to early snowfall, and as the open season in Zanskar is of very short duration, the work could not be resumed there before the commencement of Sawan this year. As the measurements and *takmil* work have been finished in the Ladakh Tahsil and early orders are required on the proposed assessments, for the preparation of *jamabandi* and *fard bachh*, etc., it seems unnecessary to wait for the completion of measurements in Zanskar. Also as Zanskar forms part of the Kargil Tahsil, and has a distinct revenue history of its own, it will be more convenient to write a separate Assessment Report for the Ilaka. The present report relates, therefore, to Tahsil Ladakh only.

CHAPTER I.—DESCRIPTIVE.

1. *Natural features, etc.*—The general description, climate, rainfall, population, revenue history, general conditions and tenures, etc., of the tract under report, were fully set forth in my Preliminary Report, which may be read with the Assessment Report, and the contents of which it would be superfluous to repeat here. Regarding the subject discussed in the Preliminary Report, I shall only add further remarks when necessary. As no orders have yet been passed on the Preliminary Report, I shall repeat in the Assessment Report all points requiring formal sanction of higher authorities.

I append herewith a map showing the boundary of the tahsil, its natural divisions, principal mountain ranges, rivers, nullahs and villages.

2. *Boundary.*—I may remark here that the boundary with Tibet, shown by the map attached to this report, does not correspond with that marked on the Government survey sheets which is not correct. This fact came to Settlement Commissioner's notice during his tour in Ladakh last year, when a corrected boundary line was marked by him and sent to me for further enquiries on spot. My enquiries shewed that the boundary line, marked by Settlement Commissioner, was fairly correct, and only a few unimportant alterations were made by me and reported to him. Thus the boundary line, corrected last year, has been followed in the map appended to the Report. This line was roughly drawn without regular survey on the spot and cannot be regarded as a thoroughly precise boundary. There have been no boundary disputes on the Lhasa frontier, and the existing boundary seems to be well understood by subjects of both the State and the Lhasa Governments, but it seems desirable that the boundary line may, in future, be definitely and authoritatively settled with the mutual consent of the Governments concerned, I would, therefore, recommend that necessary action may be taken in this direction to prevent any possible friction in future. The State village of Mansar is situated within the Lhasa territory and its present assessments will be discussed in proper place.

3. *Classification of villages.*—A division of the Tahsil into assessment circles is impossible in this country, and hence no assessment circles are shewn in the map. The classification of villages, adopted for assessment purposes, has been fully discussed in paragraph 24 of the Preliminary Report. Classification of villages was made on similar lines in the settlement of Baltistan, and revision of assessments in Ladakh, but each village was taken as a unit for purposes of classification, and all the *muhallas* attached to a village were placed in the same class as the principal village. This classification rendered the

calculation of fair half net assets and village assessments quite unreliable, as no fair rates could be equally applicable to the principal villages and their distant *muhallas* and *bruk* areas situated at a much higher altitude near the sources of the irrigation nullahs. Most of the complaints in Baltistan were due to the principal fertile villages, and the higher and poorer *muhallas* being treated alike. I considered it necessary, therefore, to place each important *muhalla* of a village in the class to which it really belonged, in view of its height, productive capacity, and other general considerations, discussed in paragraph 24 of the Preliminary Report. This classification renders the preparation of general statistics very complicated, but in the absence of such a classification, it would be impossible to calculate fair half net assets rates, or work out a fair assessment for different *muhallas* included in an estate. It is not necessary to place separate assessment on each *muhalla*, but a fair demand for an estate cannot be worked out unless the difference in capacity of the different *muhallas* has been taken into account. This method was approved by the Settlement Commissioner last year, and has been followed by me, in spite of a good deal of labour, which the system involves.

To have a clear record of the proposed classification, I have appended a list as Appendix A showing the classification of all the principal villages and the various *muhallas* attached thereto. The first class villages can be traced along the river banks from Saspul to Dah in the Lower Indus Valley and from Diskit to Begdung in the Nubera Valley. Even in these valleys poorer villages intervene, the capacity and classification of which has been fully discussed in the *Haisiat Dehi* notes. The second class villages will be seen in or near the Indus or Nubera Valleys from Upshe to Bazgo in Central Ladakh, and from Khemi to Skoru in Nubera. The third class villages are scattered all over the tahsil, but will be chiefly found in Tonktse and Rung Nakas, and in the side nullahs flowing into the Indus and Nubera rivers. Similarly the fourth class villages and *muhallas* cannot be traced in a well defined tract, but are situated promiscuously at the top ends of the various nullahs and at a much higher altitude than the principal villages. Most of them lie at the foot of the snow-covered hills, and suffer from severe cold. All such areas receive little attention and less manure, and hence the crops are uncertain. Fields are often left fallow, and water supply is late owing to the snow not melting in time.

It is interesting to note that crops flourish well and are pretty secure in some of the high third class villages like Nimamud, Shushal and Koyal, the altitude of which is from 14,000 to 15,000 feet. Cultivation in some villages is perhaps the highest in the world. A species of giram called yangma is grown here and the crop is pretty secure, provided the valley is open and supply of water and manure sufficient. It may be noted here that according to the proposed classification some of the general statistics regarding population and size of holdings, etc., cannot be worked out properly for each class as a whole, as most of the assamis reside in the first or second class villages, and own lands in distant *muhallas* placed in the third or fourth class, but this deficiency has been made up by preparation of very complete *Haisiat Dehi* notes, to which all the necessary statistics have been attached. Also care has been taken to differentiate between the capacity of estates placed in the same class, which have been described in the *Haisiat Dehi* notes as good, bad, or average villages of their class.

4. *Classification of soils.*—Classification adopted by me was approved by the Settlement Commissioner in 1963. It was discussed in my *Hadait-i-Paimaish* and paragraph 25 of the Preliminary Report, and no further remarks are needed on this subject.

With regard to clause (v) of the above paragraph, I may note that the total cultivated area returned as Sasik is 641 acres, and hence no alteration is required in the classification adopted.

5. *Rainfall and climate.*—I may add under this head that the last winter was a mild one. The total rainfall, including snowfall converted into rain, during the year 1907 was 7.69, which is rather above the average of the past five years. The summer rains of this year have beaten the record of

calculation of fair half net assets and village assessments quite unreliable, as no fair rates could be equally applicable to the principal villages and their distant *muhallas* and *bruk* areas situated at a much higher altitude near the sources of the irrigation nullahs. Most of the complaints in Baltistan were due to the principal fertile villages, and the higher and poorer *muhallas* being treated alike. I considered it necessary, therefore, to place each important *muhalla* of a village in the class to which it really belonged, in view of its height, productive capacity, and other general considerations, discussed in paragraph 24 of the Preliminary Report. This classification renders the preparation of general statistics very complicated, but in the absence of such a classification, it would be impossible to calculate fair half net assets rates, or work out a fair assessment for different *muhallas* included in an estate. It is not necessary to place separate assessment on each *muhalla*, but a fair demand for an estate cannot be worked out unless the difference in capacity of the different *muhallas* has been taken into account. This method was approved by the Settlement Commissioner last year, and has been followed by me, in spite of a good deal of labour, which the system involves.

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previous years, the total rainfall in Leh during the last two months being 3.5; but this has been an untimely blessing, and the Rabi crops in some lower villages have been damaged to some extent. During the years 1963 and 1964 the amount of snowfall has been sufficient to maintain supply of water for irrigation purposes.

6. *Population.*—No further remarks are required regarding character of inhabitants. The census taken by the settlement establishment has not yet been finally attested. The figures reported seemed to me unreliable, and opportunity will be taken, during the progress of *Tasdik-i-Akhir* operations, of taking a careful census of the tract under report.

CHAPTER II.—EXPIRING SETTLEMENT:

7. *Revenue and Political History.*—A short sketch of revenue and political history of this tahsil is given in paragraph 10 of the Preliminary Report, and I would only add here some remarks about the current demand and the working of the expiring settlement.

8. *Current demand.*—Mr. Clarke has made the following remarks regarding his assessments in his letter No. 1368, dated 8th December 1902 :—

“The new revenue amounts to Rs. 51,115-12-0 and the fixed grazing fees to Rs. 3,338-4-0. The land revenue is therefore reduced by Rs. 1,800-9-9. Last year's grazing demand was Rs. 3,751-9-0, but out of this Rs. 768-3-0 was not paid by the Hemis monastery, and the net income was, therefore, Rs. 2,983-6-0, so that the net loss of revenue when land revenue and grazing fees are taken together amounts to Rs. 1,445-11-9 only, a very small decrease, but in my opinion an absolutely necessary one. Against this is to be set the gain arising from the resumption of muafis held without proper title, or much in excess of the grant, so that the net result of settlement should be a slight gain to the State, and this gain will be consistent with some relief to the cultivators.”

This is not very clear, but Mr. Clarke's assessment is given in the *kistbandi*, the entries of which are as follows :—

Particulars.	Amount.		
	Rs.	a.	p.
Cash	41,166	10	9
Grazing fee	3,338	4	0
Grain (3,096 maunds 5 seers) at 20 seers per rupee ...	6,192	4	0
Fuel 5,555 maunds 31 seers 4 chhataks at 2 maunds per rupee	2,777	14	3
Total	53,475	1	0

A further reduction of Rs. 20-9-6 was made in the grazing fee which reduced the total revenue to Rs. 53,454-7-6. This excluded *jagirs* and *muafis*, orders on which were not received till the year 1960. The following table gives slight variations in demand from 1960 to 1964. The items of increase are very small and relate chiefly to new revenue placed on mills and on land acquired under Regulation No 6.

Year.	REVENUE.			Total.	Muafi and Jagir	Lambardari fee.	Grazing fee.	Total.	REMARKS.
	Cash.	Grain.	Firewood.						
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
Kharif 1960 and Rabi 1961 ...	40,097 12 9	6,192 4 0	2,777 14 3	49,067 15 0	7,921 7 7	1,219 10 0	3,338 4 0	61,547 4 7	<i>Note by Settlement Commissioner's office.</i>
Kharif 1961 and Rabi 1962 ...	40,109 6 0	6,192 4 0	2,777 14 3	49,079 8 3	7,923 2 10	1,240 3 6	3,317 10 6	61,560 9 1	<p>The Settlement Officer has subsequently reported that the figures for land revenue given in this statement have been found to include the following items: assessment of mills Rs. 86; Salt tax on Karzok and Samad Bukchen villages Rs. 40; jama of village Mansar in Tibet Rs. 278-12-0; lambardari fees on grazing revenue Rs. 20-9-6. Adding to these the grazing revenue shown in the statement, the total deductions amount to Rs. 3,743, leaving Rs. 57,848 as the correct current land revenue demand in Ladakh.</p> <p>No details are available for consequent corrections in paragraphs 40 to 57, but the differences are unimportant.</p>
Kharif 1962 and Rabi 1963 ...	40,130 10 3	6,192 4 0	2,777 14 3	49,100 12 6	7,921 8 8	1,240 3 6	3,317 10 6	61,580 3 2	
Kharif 1963 and Rabi 1964 ...	40,016 10 10	6,176 10 6	2,766 2 3	48,959 7 7	8,068 0 2	1,236 12 0	3,317 10 6	61,581 14 3	
Kharif 1964 and Rabi 1965 ...	40,020 14 5	6,168 4 6	2,763 0 6	48,952 3 5	8,084 6 8	1,236 5 6	3,317 10 6	61,590 10 1	

9. *Working of the expiring settlement.*—The current demand has been paid without any difficulty, and no necessity has arisen to grant any suspensions or remissions. A sum of Rs. 45-2-0 was only remitted last year, in anticipation of orders, in a muafi case of the Rigzing Gunpa. The number of processes issued since 1959 has been very small. Only in the year 1962, 101 *dastaks* were issued, but this was a bad year and zamindars had suffered heavy losses owing to a severe epidemic among their cattle.

10. *Arrears.*—The arrears of land revenue are very small, as will be shown by the table below :—

No.	Year.	ARREARS.			
		Cash.	Grain.	Firewood.	Total.
		Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
1	Before Sambat 1958	17 6 0	...	...	17 6 0
2	1962 ... ..	...	20 0 0	35 1 0	55 1 0
3	1964	64 6 0	19 2 4	21 14 4	105 6 8
	Total	81 12 0	39 2 4	56 15 4	177 13 8

The item No. 1 consists of the following :—

- (a) Rupees 3-12-0 on account of the rent of a house in Leh which no longer exists. Has nothing to do with land revenue.
- (b) Rupees 6 revenue of Zamking, a State area given to zamindars in Chhachot, but subsequently resumed by the State.
- (c) Rupees 7-10-0 due from Tsering Anchuk, late Kardar, who died before 1955, and left no heirs.

These are all old arrears prior to Sambat 1958 and should have been written off in that year.

The item No. 2 relates to the arrears due in respect of the holdings of one Nochun in Mathu. The Assami right of the land is in dispute and the case is under enquiry.

Item No. 3 consists of the following :—

- (d) Rupees 10-6-0 is due from absentees in Chhachot.
- (e) Rupees 52-0-0 due from zamindars of Tanyar. The village is extremely poor, and a few of the villagers have absconded.
- (f) Rupees 43-0-8 is recoverable.

I would therefore recommend that the items (a), (b), (c), (d) and (e) amounting to Rs. 79-12-0 may be written off.

CHAPTER III.—AREAS.

11. *Areas of Sambat 1958 and Sambat 1964 compared.*—The following table compares in acres, the areas returned at present, with those recorded in Sambat 1958. State gardens and *ul* areas, and other lands not liable to assessment, have not been included in this statement:—

Year.	UNCULTIVATED.							Cultivated.	Total area.
	Unculturable.	CULTURABLE.					Total.		
		Unappropriated State waste.	Appropriated waste.	Esar and safesar.	Krisham.	Banjar jadid.			
Sambat 1958* ...	94,958	616	9,478	774	...	202	10,288	22,723	128,046
	74.2	.5	7.4	...	...	.2	8.1	17.7	...
Sambat 1964* ...	54,807	5,270	9,001	787	54	179	15,291	16,895	68,993
	61.6	5.9	10.1	.9	.06	.2	17.2	21.2	...
Increase† ...	...	4,654	...	713	54	...	4,923	...	...
	...	755	...	960.8	...	...	47.6	...	...
Decrease† ...	40,151	...	475	...	...	23	...	8,828	39,056
	42.3	...	5.4	...	...	11.4	...	16.8	30.5

* Percentage on total area.

† Percentage on figures of Sambat 1958.

These figures will show that there has been a decrease of 39,056 acres or 30.5 per cent. in the total area recorded in 1958. Similarly there is a considerable falling off, both in the cultivated and uncultivated area. I may add here that the records of 1958 were based on the measurement of 1942, and a few villages only were actually measured in 1958. The measurement operations of 1942 were not conducted under proper supervision, and hence the large differences in area figures of the two settlements. I was at first under the impression that the *karam* used in 1942 was 55 inches in length, against the present *karam* of 66 inches, and that this was the cause of large difference in areas. But further enquiries have proved that the same chain has been used in both settlements, and that the difference in areas is due to other causes, which may briefly be noticed below:—

No deductions can be drawn from the large decrease in the unculturable area, as any amount of area may be measured and returned as unculturable in this country. In the present settlement, it has been considered unnecessary to measure the vast sandy areas far from villages and of no possible use to villagers. Strictly speaking, most of the areas returned as unculturable waste, is culturable, provided means were found to bring the area under irrigation, but water supply in each village has been fully utilized, and there can be little hope of further extension in irrigation, except by State aid,

The decrease in cultivated area is chiefly due to some uncultivated areas having been returned as cultivated in 1942, and no deductions being given for the Banjar areas, included to a large extent in cultivated fields. The large increase in unappropriated waste is due to the fact that most of the Banjar plots, within the village boundaries, were recorded as *shamlat* in 1942. Inqui-

ries have been made in the present settlement, regarding all such areas, which in the absence of actual possession by the zamindars, have been recorded as State waste.

Similarly an increase of 713 acres under Bedzar and Safedazar, owned by villagers, is due to most of such groves being returned as *khalsa* without proper enquiries in 1942.

The following table compares the cultivated area, under different classes of soils in the two settlements:—

Year.	Majing.	Barjing.	Bagh barjing.	Thajing.	Bagh thajing.	Ulthang.	Total.
Sambat 1958*	1,780 79	12,867 56.6	71 3	5,699 25.1	81 1	2,275 10	22,723
Sambat 1964*	771 4	10,932 57.9	69 5	4,759 25.2	44 2	2,300 12.2	18,895
Decrease†	1,009 56.7	1,935 15	...	940 16.5	...	...	3,826 16.6
Increase†	...	...	18 25.4	...	13 41.9	25 1.1	...

* Percentage on total area,

† Percentage on figures of 1958.

The *kungzhing* class of the last settlement has been eliminated in the present settlement. Hence the area returned under this class in 1958 has been added to that under Barjing, for purposes of comparison. Similarly the area under the two classes, Chas and Sasik, adopted in the present settlement, has been added to that of *barjing* and *thajing*, respectively, of the present returns. The decrease noticeable in *majing* is a clear instance of the want of care, in which soil entries were made in 1942. Each Assami owns only one field of this sacred land, and little alteration could be expected in the area returned under this class. The decrease under *barjing* and *thajing* is due to the general decrease in cultivated area already discussed.

12. *Areas excluded from assessment.*—The table below gives details of the area now returned as not liable to assessment:—

1	2	3	4	5	6	7	8	9	10	11	12	13
UNCULTIVATED.					CULTIVATED.							Grand total.
Unculturable.	Banjar kadim.	Bedzar.	Krisham.	Total.	Barjing.	Bagh barjing.	Thajing.	Bagh thajing.	Chas.	Ulthang.	Total.	
270	137	413	9	829	4	1	3	5	6	322	341		1,170

Some of this area is occupied by different departments of the State, the Joint Commissioners, and the Moravian Missions, who hold certain gardens and lands on contract for a specified period. The remaining area is under State gardens or is held under Regulation No. VI. The *milan rakba* statement

attached to the report, as Statement No. I, shows all the necessary details of areas of 1942, as compared with the present returns, excluding the above areas not liable to assessment.

13. *Correct assessable area.*—The following table shows the actual cultivated and assessable area for each circle, and class of soil as recorded in the present settlement. These figures will be adopted for the purposes of working out revenue rates:—

Assessment circle.	Majing.	Barjing.	Bagh barjing	Thajing.	Bagh thajing	Chas.	Sasik.	Ulthang.	Total.
First	77	680	50	371	26	8	76	116	1,404
Percentage	5.4	48.4	3.5	26.4	1.8	.5	5.4	8.2	
Second	354	5,771	37	1,447	14	26	204	1,416	9,269
Percentage	3.8	62.2	.4	15.6	.15	.2	2.2	15.1	
Third	328	4,213	1	1,737	2	13	258	706	7,258
Percentage	4.5	58	...	23.9	...	.1	3.5	9.7	
Fourth	12	220	1	503	2	1	103	62	964
Percentage	1.2	2.8	...	5.8	...	...	10.6	6.4	
Total	771	10,834	89	4,118	45	48	641	2,900	18,895
Percentage	4	57.6	...	21.8	.2	.2	3.4	12.2	

The above will show that the first and fourth circles are much smaller than second and third, and that the second circle is the largest of the four and about equal in area to the remaining three taken together.

Among soils, *barjing* is by far the most predominant class. Most of the land held by zamindars is known to them as *barjing* or middling. Next in order comes *thajing* or distant land. The areas now returned under these classes bear approximately the same ratio to the total cultivated area as that noticeable in the returns of 1958. It will also be observed that most of the *ul* area is taken up by the second circle which is probably due to the fact that most of the second class villages, along the Treaty Road, find a ready market for surplus produce of *ul*. Another reason is that *ul* cannot be grown in most of the high villages in the third and fourth classes.

14. *Increase of cultivation.*—The total increase of cultivation since 1958 is given below:—

Under Regulation No. 6	...	...	40 acres.
Do <i>Nautor</i>	...	...	197 "
Total	...	...	237 "

This gives an increase of only one per cent. on the cultivated area of 1958. Rate of increase cannot be correctly worked out for each circle without tracing every field number, in the old and the new records, as the present classification differs from the old one. The increase, however, is insignificant, and has mostly taken place in the first and second class villages. The new land is generally of poor quality and uncertain irrigation, as every acre of irrigable land has been occupied long ago. For the same reason a substantial extension in cultivation cannot be expected in future, unless State aid is given for construction of new irrigation channels. A rough sketch of irrigation projects is attached to my Preliminary Report.

CHAPTER IV.—CROPS.

15. *Recent harvests.*—I have had occasion to observe only four crops during the progress of the settlement operations in Ladakh in the years Sambat 1963 and 1964. The present harvest of Rabi, Sambat 1965, is also being harvested,

but as the *girdawari* of this harvest will take some time, crop statistics have only been prepared for the two years above mentioned. The *kharif* crop is very unimportant here as *trumba*, *kangni* and *china* are sown in autumn on a very small area in the first and second circles. The crops of Sambat 1964 and 1965 have both been above average; the Rabi of Sambat 1964 being exceptionally good.

16. *Cropped area of Sambat 1964.*—I do not think it right to adopt the average of the cropped areas of recent years for the purposes of the produce estimates, and my calculations will be based on the areas of Sambat 1964 only, which are shown in Statement No. 2 appended to the report. *Jinswar* Statement No. 3 compares the detailed crop returns of Sambat 1959 and 1964. My reasons for adopting the crop returns of 1964 only are given below :—

- (1) The cultivated area returned in 1958 was 22,723 acres as compared with 18,895 acres recorded at present, and this decrease of about 17 per cent, is not due to any actual decrease in cultivation, but is merely the result of the correct measurements of the present settlement. Hence the crop statistics of the recent years, including Sambat 1963, which are based on incorrect area entries of 1958, will only tend to vitiate the result by giving a much higher average of the area under crops.
- (2) Owing to the incompetence of the Patwar Agency employed in this tahsil, no reliable *girdawari* has been done since the year Sambat 1958, and hence the crop returns of these years are not of much value.
- (3) The classification of villages adopted in Sambat 1958 being entirely different from the present one, the acreage under crops in each circle, shown in returns of the previous years, could not be conveniently given under the present classification.

For the above reasons I have decided under advice from the Settlement Commissioner to adopt for the purposes of the produce estimates the crop returns of 1964 only, which are based on the correct measurements of the present settlement, and which have been prepared under proper supervision. I may also add that owing to the limited extent of the cultivated area and the permanent and pretty secure condition of the water supply, fluctuations in cropped area are very insignificant, which makes it unnecessary to take the average of the crop returns of a number of years.

The general character of the cropping is shown in the following statement, which gives in detail the crops, matured and failed in Sambat 1964, on 100 acres of each class of land :—

1	2	3	4	5	6	7	FIRST.					SECOND.					THIRD.					FOURTH.					
							Majng.	Barjng.	Thajng.	Chas.	Sasik.	Uthang.	Majng.	Barjng.	Thajng.	Chas.	Sasik.	Uthang.	Majng.	Barjng.	Thajng.	Chas.	Sasik.	Uthang.	Majng.	Barjng.	Thajng.	Chas.	Sasik.	Uthang.
Giram	51.4	51.5	29.5	...	...	...	45	38.1	23.4	...	12.5	...	47.5	...	88.9	85.5	79.5	...	100	...	...	...	...	...	...	...
Wheat	33.8	27.3	38.6	...	24	...	30.7	31.9	38	...	22.5	...	14.8	...	...	...	1.8	...	...	...	...	...	...	...	...	...
Barley	4	4.2	2.7	...	...	...	15.8	17	19.6	...	22.5	...	21.3	...	...	...	8.9	...	...	...	...	...	...	...	...	...
Pulses	6.8	12.5	15.5	...	28	...	5.8	7.1	11.2	...	12.5	...	6.8	...	...	...	6	...	...	...	...	...	...	...	...	...
Oil	...	...	...	...	...	100	...	...	...	...	...	100	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other crops and vegetables	2.7	1.7	3.7	...	...	...	2	4.3	5.3	100	5	...	9.8	...	...	...	2.2	...	...	...	...	...	...	...	...	...
Total Rabi crops matured.	98.7	97.3	90	87.5	52	100	99.1	96.4	97.5	100	75	100	100	100	100	97.3	96.3	...	100	100	...	...	...	...	...	...
Total failed	1.3	.6	1.5	...	4	...	.6	1	1	...	2.5	...	...	...	...	11.1	3.5	...	...	...	...	...	...	...	...	...
Total Rabi sown	100	92.9	91.5	87.5	56	100	89.7	89.4	86.5	100	77.5	100	100	100	100	98.9	99.8	...	100	100	...	...	...	...	...	...
Trumba	24.3	28.6	11.9	...	44	...	3	1.2	1.9	...	22.5	...	...	...	...	...	1.6	...	...	...	...	...	...	...	...	...
Kangni and china	2.7	4.8	1.8	12.5	...	...	...	.8	.7	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total Kharif crops matured	27	31.4	13.7	12.5	44	...	3	2	2.8	...	22.5	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...
Total failed	1.4	1.8	1.2
Total Kharif sown	28.4	33.2	14.3	12.5	44	...	3	2	2.8	...	22.5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total Kharif	125.7	128.7	103.7	100	98	100	99.4	100.4	100.1	100	97.5	100	100	100	100	98.9	96.5	...	100	100	...	...	...	...	...	...
Matured
Failed	2.7	2.4	2.1	...	4	...	.6	1	1	...	2.5	...	...	...	...	...	1.6	...	...	...	...	...	...	...	...	...
Sown	128.4	131.1	105.8	100	100	100	100	101.4	101.1	100	100	100	100	100	100	100.5	100.4	...	100	100	...	...	...	...	...	...

Note.—The percentages shown in the statement take no account of the cultivated area and are merely intended to show for each soil the ratio of each crop to total cropping of the year. Hence the percentages do not correspond with those given in jinawar or quoted in Assessment chapters.

Note by Settlement Commissioner.—In that case the total should be 100 in every instance. I have been unable to understand this statement. It is not one showing percentage of different crops on area cultivated.

W. S. T.

17. *Crop returns of the last six years compared.*—The following table compares the area under different crops for the years Sambat 1959 to 1964:—

		Crops.	1959.	1960.	1961.	1962.	1963.	1964.
RABI CROPS.	Wheat	3,952	4,089	4,103	3,989	4,362	3,785	
	Giram	8,063	8,480	8,026	6,456	8,530	6,558	
	Barley	3,028	2,703	2,941	2,725	2,738	2,244	
	Pulses	2,078	1,696	1,841	1,763	1,069	1,205	
	Ul	2,722	2,787	2,817	2,837	2,837	2,292	
	Other crops	894	891	868	828	1,394	717	
	Total matured	20,737	20,646	20,616	20,598	20,930	16,801	
	Total failed	22 1	12 1	17 1	34 2	...	106 7	
	Total sown	20,759	20,658	20,633	20,632	20,930	16,907	
KHARIF CROPS.	Trumba	398	451	417	441	429	392	
	Kangni and china	102	102	173	139	391	56	
	Other crops ... ..	...	...	...	...	...	65
	Total matured	500	553	590	580	820	513	
	Total failed ... ..	...	1 2	...	...	1 1	15 26
	Total sown	500	554	590	580	821	525	

As already remarked, the *girdawari* work of the years Sambat 1960 to 1962 is unreliable, and area figures are incorrect. Hence no deductions of any value can safely be drawn from this table. The *girdawari* of Sambat 1963 was also done on the old areas and hence the figures do not compare with those of Sambat 1964. However, a comparison of the figures of Sambat 1959 and 1964, after making due allowance for the difference in areas of the two years, will lead to certain conclusions, as *girdawari* of 1959 was done under orders of Mr. Clarke. By roughly reducing the figures of 1959 by 17 per cent., it will be observed that there has been a substantial increase in the cultivation of wheat, which is steadily gaining in popularity owing to the requirements of Treaty Road. Figures for *giram* show a similar increase, while those for barley, pulses, *ul* and others seem stationary, some increase is also noticeable in *trumba* and other *kharif* crops, though it is difficult to say, with certainty, how much of this increase is due to actual extension in cultivation. The figures for *kharaba* are not of much value, as, in spite of frequent instructions and orders, *karkuns* seldom give proper deductions for *kharaba*.

18. *System of cultivation.*—The following points require notice regarding system of cultivation :—

- (i). *Rotation of crops.*—There is no customary rotation of crops in vogue here, except that wheat is not grown on the same soil for more than two or three years, as wheat is believed to weaken the soil. Wheat is often followed by *giram*, but if the soil is much impoverished, *matar* or *sarshaf* are sown for a year, as the roots and leaves of *matar* are believed to strengthen the soil, while *sarshaf* is a crop of very short duration, and the rest thus allowed renovates exhausted strength of the soil. Also wheat is a crop of the longest duration, and allows no time for a second crop. Hence preference is given in *dofarli* villages to *giram*, which is followed by *trumba*, *china* or *kangni*.
- (ii). *Sowing.*—Seed is sown broadcast in the lower first class villages according to the *chhatta* system of the Punjab, but in all villages of the other circles it is poured into the furrow in a much larger quantity. The zamindars say that it is necessary to sow a large quantity of seed in higher villages to make allowance for possible failures, as a part of the seed grain often fails to germinate on account of cold,
- (iii). *Ploughing.*—Ploughing is done only twice, which is quite insufficient, but zamindars say that they cannot afford to do more, as the number of plough bullocks is very small. First ploughing is done after the crop is harvested, while the second is done at the time of sowing the seed. The first ploughing is sometimes dispensed with by a poor Assami, who barely scratches the surface of the soil only once at the time of sowing.
- (iv). *Watering.*—Watering is done very frequently, the first before sowing, the second a month after sowing, and the rest at intervals of 8 to 15 days or so. The crops are sure to dry up if no watering is done for a month.
- (v). *Manure.*—Ten to twelve maunds is considered the standard manure for one *khal* of land, but many poor Assamis cannot afford this and go much below the standard. *Giram* is the best manured crop in all circles, but zamindars of Leh supply the same amount of manure to wheat. Barley comes next, while the other crops require no manures. As crops do not flourish here in the absence of manure, it is husbanded with great care and supplied to every field, but the thajing plots being comparatively distant receive less manure.
- (vi). *Weeding.*—Weeding is only done in lower villages of the first circle, while it is considered detrimental to the growth of the crops in higher circles, as cold water penetrates into the softened soil and damages the plants.

CHAPTER V.—RATES OF YIELD.

19. *Crop experiments.*—Like most Settlement Officers I have to record my disappointment at the results of the crop experiments which have not been conducted with proper care by some of the subordinate officers. The settlement establishment reached Ladakh rather late in the year 1963 after the crops had been harvested in most villages of the first and second class. Hence twenty-three experiments could only be made during that year. In the spring of 1964 I issued a detailed *Hidait*, containing necessary instructions regarding crop experiments and calling on subordinate officers to conduct experiments for each important staple in each circle and class of soil. But the number of Settlement Naib Tahsildars in Ladakh being only four, eighty-four experiments could only be made in Sambat 1964.

Also the Naib Tahsildari circles being very extensive, owing to the vast distances of villages from each other, all the experiments in a circle could not be personally attended to by the Naib Tahsildars, and were made over to Munsarims in some cases. Again most of the experiments were confined to principal villages, and very few plots were selected in the higher and poorer areas. Further the experiments were mostly made in small plots, as large fields are not often met with in this country. It may also be noted that the years Sambat 1963 and Sambat 1964 were both above average, the latter being exceptionally good and hence the outturn was generally above average. I would also mention that in good years like the last, when little damage is done by a late spring or early winter, the outturn is generally as good in the third class villages as that in the second or first, as the chief drawback of the higher villages is the damage done by excessive cold. For the above reasons, some experiments in higher villages have shown better results than those in the lower ones. It is also well known that nature plays its pranks very often, and refuses to fulfil the requirements of statistics and classification.

Under the circumstances, the results of the crop experiments cannot be taken as the chief guide in fixing average rates of yield, but they will serve as a side light in checking a tendency to take too low or too high rates.

While arranging the data supplied by crop experiments, I noticed that results of crop experiments were shown in some cases according to the former classification of villages, which does not correspond with that now adopted, and hence these results have been re-arranged, and differ to some extent from those submitted in my previous reports to the Settlement Commissioner. The results now obtained are shown in Appendix B, attached to the report.

In view of the guess work nature of the process of working out rates of yield, I have been trying during the last two years to form an idea of the average outturn of different crops in different soils and circles, and have made patient enquiries in almost all the villages inspected by me. Fortunately the zamindars of this country are not much given to telling lies, and a rough uniformity is traceable in the various statements recorded by me in the different *Ilakas*. The villagers' estimates range from two to six *khals* per *khal*, but this *khal* is a variable quantity: one *khal* is equal to 12 seers, and this seed measure is also used as a land measure to denote the area in which one *khal* of seed is sown. Hence the amount of *khal* as a land measure, varies with the quantity of seed grain sown in different *Ilakas*. As a rule, seed grain is sown here much more profusely, than in the Punjab. But the rate is different in the different *Ilakas*, and hence it is very difficult to fix a precise standard for a *khal*. It usually varies from 12 *marlas* to $1\frac{1}{2}$ *kanals*, in different *Ilakas* in Ladakh, and it requires a good deal of calculation to convert into seers the average estimates of outturn given by the zamindars.

I also asked the Assistant Settlement Officer to independently work out average rates of outturn, and his estimates have been considered by me in fixing my assumed rates.

The rates adopted in Tahsils Kargil and Skardu have also been considered, but I do not place much reliance on these rates, which are too rough, and in most cases distinctly low. For an instance an average rate of 350 seers is conspicuous for its presence in each circle and class of soil. Also uniform rates have been assumed in all cases for different soils in a circle. It would be out of place to criticise the Baltistan rates here, but my object in referring to these rates is merely to show that I consider it unnecessary to follow these rates, to any great extent, in assuming rates for Ladakh.

I proceed now to discuss the average rates of outturn assumed by me. I may state at the outset that, in view of the harvests under observation being much above the average, I have departed rather widely from the results of the crop experiments, and have chiefly been guided in assuming my rates by my personal knowledge of the country and other considerations, discussed in the foregoing paragraph.

20. *Giram.*—Giram, as shown in the margin, accounts for nearly $\frac{1}{3}$ of the total crops raised in this tahsil and is by far the most important staple in all classes of lands and all circles. The data on which the assumed rates

of yield are based are given in the the following table, together with the rates assumed.

GIRAM.

1	2	3	4		5	6	7	8	9
			RATES ASSUMED.						
CIRCLE.	Soil.	Area in acres under this crop in each class of soil.	Kargil.	Skarda.	By crop experiment.	Statement of zamindars.	Opinion of Assistant Settlement Officer.	Rates assumed.	
FIRST.	Majing and barjing	379	360	360	802	380	385	420	
	Thajing	97	360	360	...	305	308	340	
	Sasik ... ..	...	...	...	...	255	154	285
SECOND.	Majing and barjing	2,258	350	360	608	220	385	410	
	Thajing	292	350	360	613	256	308	330	
	Sasik	5	...	...	...	218	154	275
THIRD.	Majing and barjing	2,188	320	350	480	800	356	380	
	Thajing	754	320	350	440	240	284	305	
	Sasik	29	...	...	...	200	142	250
FOURTH.	Majing and barjing	167	...	320	...	236	240	260	
	Thajing	344	...	320	...	188	192	215	
	Sasik	45	...	...	...	155	96	180

Giram is the most popular food and the most important crop of this country, and its cultivation is attended with much labour and care. In most villages it is preferred to wheat, and sown in the best soil. It will be noticed that the rates assumed by me invariably exceed those given by the zamindars and the Assistant Settlement Officer, but it will also be seen that my assumed rates are well below the results of crop experiments. The lower estimates given by the Assistant Settlement Officer and the zamindars are, in all cases, due to the fact that they have deducted seed grain from the average outturn, which I do not think is permissible. These expenses are not shared by the landlord, and are borne exclusively by the tenant. Also it is not customary to make such deductions from average rates of outturn, which must be correctly stated, the expenses of cultivation being separately considered. The same rates have been assumed for *majing* and *barjing*, the distinction between which is merely a religious one, and the produce of which is considered to be equal by all Settlement Officials and zamindars. Again *barjing* and *thajing* are only relative terms, and it would be impossible to estimate precisely their difference of outturn. In most cases their intrinsic quality is about the same, and the only difference is that *thajing* being more distant from village site than *barjing*, receives a little less manure. The zamindars estimate its average produce at about $\frac{4}{5}$ of that

of *barjing* to which the Assistant Settlement Officer and myself agree. The Assistant Settlement Officer's estimate for *sasik* is much lower than mine. He has invariably assumed half the *thajing* rates for this class, on the ground that *sasik* is not sown every year, and hence its produce might be reduced to half the outturn of *thajing*. But this view is not correct, as the cropped area only will be taken into account in preparing the produce estimates, and it is not correct in principle, to reduce average outturn of a class, on the ground that some area under that class is left unsown. The revenue rates on *sasik* will be necessarily reduced, when the assessment, worked out on the cropped area, is spread on the total cultivated area of the class. I have fully discussed the subject with the zamindars, who consider that owing to the rest allowed to *sasik*, its produce is generally as good as that of *thajing*, but in view of the inferior quality of the soil, its average produce may be taken at about $\frac{5}{8}$ of that of *thajing*. I think this view is correct, and have assumed my rates accordingly. The above remarks will apply to all circles, but I may point out here that the Assistant Settlement Officer has adopted similar rates for first and second circles, which does not seem to me correct, as the crops in lower villages of the first class flourish better, and are certainly more secure, than those in the second class. It is true, that there was not much difference between the average outturn of the circles last year, but this cannot always be the case, and in years of late spring and a long winter, the crops must suffer to some extent in the higher second class villages. Hence I have assumed slightly lower rates for the second class. It is unfortunate that no experiments have been conducted in the fourth class, but I have often observed that crops flourish fairly well, if not damaged by early snowfall, which renders cultivation in this class uncertain. The zamindars think that taking account of good and bad years, the average outturn of this class may be put at $2\frac{1}{2}$ *khals* per *khal*, that is, about $\frac{5}{8}$ of the average produce of the first class villages, the rate for which is stated to be 4 *khals*.

21. *What and barley*.—After *giram* wheat is the most important *rabi* crop.

Circle.	Wheat.	Barley.	It is steadily gaining in popularity with progress of trade and civilization. The zamindars do not see any virtue in wheat, and prefer <i>giram</i> as food,
First circle	22	3	
Second circle	27	14	
Third circle	17	14	
Fourth circle	1	5	

but they find that it fetches a better price than *giram*, and is much appreciated by officials, visitors and traders. It is largely grown in second class villages situated along the Treaty Road. The small area shown in the fourth class really belongs to the first and second circles, the highest and *Bruk* areas of which have been classed as fourth. The following table gives the necessary data for the rates assumed :—

1	2	3	4	5	6	7	8	9
CIRCLE.	Soil.	Area in acres under this crop in each class of soil.	RATES ASSUMED.		By crop experiments.	Statement of zamindars.	Opinion of Assistant Settlement Officer.	Rates assumed.
			Kargil.	Skardu.				
FIRST.	Majing and barjing...	206	350	350	495	360	374	400
	Thajing	127	350	350	...	300	300	320
	Sasik	6	...	...	...	280	150	300
SECOND.	Majing and barjing...	1,868	350	350	*623	300	374	395
	Thajing	473	350	350	589			
	Sasik	9	...	...	...	250	300	315
THIRD.	Majing and barjing...	890	340	350	...	370	356	350
	Thajing	189	340	350	*383	220	284	280
	Sasik	9	...	...	381			
FOURTH.	Majing and barjing...	1	...	340	...	220	234	230
	Thajing	8	...	340	...	180	188	185
	Sasik ... ..	...	...	...	...	150	94	155

* Wheat above, barley below.

The remarks given in the preceding paragraph will explain the difference between the rates assumed by me and the Assistant Settlement Officer. The difference in my assumed rates for first and second circles is nominal, as the produce of this staple is about equal in both these circles owing to the second class villages being much interested in cultivation of wheat and giving it as much attention as to giram. It will also be observed that crop experiments give a much greater outturn for the second class, but this is due to the large number of experiments having been made in this class against one or the perfunctory experiments conducted in the first class.

Considering the better climate and general security of crops in the first circle as compared with the second, I have assumed a slightly higher rate for the former. My rates for third and fourth classes are slightly lower than those adopted by Assistant Settlement Officer except in case of sasik. This is due to the fact that wheat is a crop which flourishes well in comparatively hot climate, and is always liable to damage in the higher and colder atmosphere of the third and fourth class villages. I have assumed the same rates for wheat and barley after careful enquiries from zamindars who are unanimously of opinion that the produce of wheat and barley is equal in weight though the latter being much lighter gives a greater outturn in bulk. This view is supported by the results of crop experiments which give approximately equal rates of outturn for both the crops.

First circle	...	...	...	...	...	10
Second circle	...	...	...	...	...	6
Third circle	...	...	...	...	...	8
Fourth circle	...	...	...	...	...	5

22. Pulses.—The following statement gives necessary data for the rates of outturn for pulses:—

1	2	3	4 5		6	7	8	9
			RATES ASSUMED.					
CIRCLES.	Soil.	Area in acres under this crop in each class of soil.	Kargil.	Skardu.	By crop experiment.	Statement of zamindars.	Opinion of Assistant Settlement Officer.	Rates assumed.
FIRST.	Majing and barjing	88	350	350	...	265	308	340
	Thajing	51	350	350	...	265	246	340
	Sasik	7	...	...	...	221	154	285
SECOND.	Majing and barjing	412	320	350	564	265	308	340
	Thajing	140	320	350	...	265	246	340
	Sasik	6	...	...	...	221	154	285
THIRD AND FOURTH.	Majing and barjing	325	320	350	...	88	240	100
	Thajing	173	320	350	360	88	240	100
	Sasik	4	...	...	...	75	120	80

The pulses consist of *matar*, *kars*, *bakla* and *masur*. The rates assumed call for no comment, except that they are well below the results of crop experiments. The low figures given by Assistant Settlement Officer and the zamindars are due to large reductions on account of the seed grain discussed before. It will be noticed that same rates have been assumed by me for the first and second circles. The reason is that the crop does not flourish better in the lower villages, on the other hand it is attacked in the warm villages of the first class by the worm called *pinze*. Also it requires no manure. Hence it gives an

almost equal outturn in *barjing* and *thajing* soils of the first and second circles. In third and fourth classes it is chiefly used as fodder, and hence the very low rates of outturn have been assumed for these circles.

First circle	...	...	...	...	...	19
Second circle	...	...	...	...	...	2
Third circle	...	...	...	...	...	1
Fourth circle	...	...	...	...	...	1

23. *Kharif crop*.—The following table gives the necessary data for *trumba* and other Kharif crops:—

KHARIF CROPS.

1	2						3	4		5	6	7	8	9
								RATES ASSUMED.						
CIRCLE.	Soil.						Area in acres under this crop in each class of soil.	Kargil.	Sharda.	By crop experiment.	Statement of zamindars.	Opinion of Assistant Settlement Officer.	Rates assumed.	
								FIRST.	Majing and barjing					...
	Thajing	...	...	...	...	...	44	260	260	...	230	244	240
	Sasik	...	...	...	...	...	11	...	...	...	192	122	200
SECOND.	Majing and barjing	...	...	...	...	...	77	200	260	335	230	304	240
	Thajing	...	...	...	...	...	26	200	260	...	164	244	195
	Sasik	...	...	...	...	...	9	...	...	...	155	122	165
THIRD AND FOURTH.	Majing and barjing	...	...	...	...	...	87	150	200	...	184	230	192
	Thajing	...	...	...	...	...	21	150	200	...	147	184	155
	Sasik	...	...	...	...	...	...	...	...	...	129	192	130

The Kharif crops of *trumba*, *china* and *kangni* are of little importance in this tahsil. They are only grown in lower villages of the first class and in a few villages in the other circles. They are much liable to damage from cold winds which set in by the time the crops are harvested. The outturn is really lower than that of other crops. The estimates of Assistant Settlement Officer are based on the average drawn from crop experiments, plus zamindars' statements which is not a safe method of assuming rates of outturn. For second, third and fourth classes my rates are lower than those of Assistant Settlement Officer. The crops do not thrive well in these higher circles owing to excessive cold and early winds.

24. *Ul* is a fodder crop of great value to the zamindars. It occupies a

	vii.					
First circle	...	...	...	...	...	8
Second circle	...	...	...	...	...	16
Third circle	...	...	...	...	...	11
Fourth circle	...	...	...	...	...	9

considerable area and is indispensable for the maintenance of cattle and sheep during the winter. As a purely fodder crop, *ul* cannot be fairly assessed. But many villages on or

near the Treaty Road in which *ul* is largely grown make handsome profit by sale of *ul* grass to Yarkandi merchants, and traders of Leh. They also collect grazing fees for the ponies allowed to graze in the *ulthang* plots in spring. In view of the above income, it is necessary that light assessment be placed on *ul*. In the distribution of assessments in 1958, the zamindars invariably placed on *ulthang* a light *parta* varying from one to two annas per kanal.

But I must make it clear that *ul* is chiefly used for fodder, and is the mainstay of sheep and cattle, and as grazing fee is separately assessed on

live-stock, it would be apparently unfair to assess the whole of the *ul* produce. I would, therefore, assess only $\frac{1}{3}$ of the total produce of *ul*. The zamindars give an average produce of 320 seers per acre, but this seems too low. On the other hand the crop experiments give an average of 1,144 seers per acre, which is too high, as the experiments were generally made in good areas during an exceptionally good year. I would, therefore, take an average rate of 500 seers per acre. In assuming this average I have kept in view the precarious nature of *ul* cultivation in colder villages and also an all round increase of 16 per cent. taken in half assets estimates.

25. *Other crops.*—Other crops of less importance are *sarshaf* and vegetables. *Sarshaf* is the only oil-seed sown in this tahsil. It is raised on small plots and to a very limited extent. Hence it is unnecessary to assume differential rates for this crop. Accord-

	<i>Sarshaf.</i>				
First circle	7
Second circle	5
Third circle	3
Fourth circle	2

ing to zamindars' statement, its average outturn comes to about 100 seers per acre, which seems very low. Two crop experiments give an average outturn of 211 seers. I assume an average rate of 150 seers for all circles and all soils.

The area under vegetables is insignificant and the crop is generally precarious and chiefly used for home consumption. Vegetables are sold to a small extent in Leh by three or four adjoining villages. I assume a uniform rate of Rs. 5 per acre for vegetables.

CHAPTER VI.—PRICES.

26. *Prices assumed.*—I submitted a separate report to the Settlement Commissioner on the subject of prices which is printed with his remarks in his Review of my Preliminary Report. The rates proposed by me and approved by Settlement Commissioner are given on page 10 of the Review. The rate for *ul* was not then reported, but as I propose to place a light assessment on the produce of this fodder crop, it is desirable to work out its value. I assume, therefore, a rate of 3 maunds per rupee, which is well recognised in Leh, where it is sold to officials and traders. As mentioned in my report, the rate for *masur* is the same as that for wheat. I repeat here the prices proposed last year together with the rate now assumed for *ul*.

RABI CROPS.

1. Wheat	18½ seers.	5. Beans	20 seers.
2. Barley	23½ „	6. Masur	18½ „
3. Giram	21 „	7. Ul	3 maunds.
4. Matar and kars ...	20½ „	8. Sarshaf... ..	12 seers.

KHARIF CROPS.

1. Trumba... ..	34 seers.	2. China & kangni ...	26½ seers.
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While adopting these prices, the Settlement Commissioner remarked as below :—

“ No commutation prices were fixed at the Summary Settlement of 1958 ; but an all-round rate of 20 seers was adopted in assessing the revenue in kind. For comparison we have also the misnamed *khushkarid* rate, which, since 1962, has been 16 seers, though previously much lower : this rate regarded in the light of the undoubted fact that the zamindars would rather keep their grain than part with it at this price, seems to indicate that the Settlement Officer's proposed prices are too low, but perhaps this unwillingness is due rather to the fact that the sales are forced than to the rate at which credit is allowed for them ; some allowance may also be made for the inconvenience and loss which seem to be the unavoidable accompaniment of State dealings in grain.....I propose, therefore, to adopt unaltered the prices assumed by the Settlement Officer, in consultation with the local officers and leading landholders ; I cannot say that I put forward these proposals with any great degree of confidence that they represent true agriculturist's prices ; all that can be said is that on the very meagre information available, they appear to be reasonable, though probably rather low.”

My report on prices will show that the necessary material for assuming prices was not at my disposal, and I had little reliable data to work out prices with any amount of confidence. The reports of Settlement Naib Tahsildars were also unsatisfactory. Hence my proposals were merely based on a rough estimate of prices prepared by a Committee of Settlement officials. But in view of the above remarks of the Settlement Commissioner, I have since been making further enquiries into prices. In my capacity of Wazir-i-Wazarat I have had many opportunities of purchasing grain locally for the requirements of the Treaty Road, and after two years' experience of the rates actually prevailing at the harvest time, I have come to the conclusion that the prices previously reported by me were too low. A reference to the tables, attached to my report on prices, will show that the prices ruling in recent years were much higher than those assumed, which were much lowered by the low rates prevailing from Sambat 1954 to 1960. But little reliance can be placed on these low rates of which no record exists. As noticed in my report on prices, the amount of surplus grain in this tahsil is very small and with the steady increase in the Central Asian trade, and the increasing requirements of administration, there can be little reasonable hope of the low rates of 1954 ever prevailing in future.

I may also add that during the years Sambat 1963 and 1964, independent trade in grain sprung up to a small extent owing to good harvests, and the forced system of misnamed "Khushkharidi," purchases at 16 seers per rupee having been given up since last year. I have purchased large quantities of wheat and giram from Kargil and Leh at 11 to 12 seers per rupee at the harvest time and at 6 to 8 seers per rupee in winter.

I give below a table showing prices prevailing at Leh during the five years from Sambat 1961 to 1965:—

Year.		Wheat.	Giram, Barley and Matar.
Sambat 1961	...	$\frac{16}{22}$ 18 seers.	18 seers.
Do. 1962	...	$\frac{14}{20}$ =16 "	16 "
Do. 1963	...	$\frac{8}{16}$ =10 "	$\frac{10}{18}$ 12 seers.
Do. 1964	...	$\frac{8}{16}$ =10 "	$\frac{10}{18}$ =12 "
Do. 1965	...	$\frac{8}{16}$ =10 "	$\frac{12}{18}$ =14 "
Total		64 seers.	72 seers.
Average per year		12.8 "	14.4 "

NOTE.—Cash rates are given above and advance rates below. Ratio of cash and advance transactions being 3 : 1, average is obtained as follows: $\frac{10}{18} \frac{(10 \times 3) + 18}{4} = 12$.

The above are Leh rates, and as there is no other grain market in the tahsil, it is impossible to quote reliable rates for any other centre. The Leh rates however generally rule all along the Treaty Road, from Kargil to Nubera, with slight modifications. The trumba and china crops are of much less importance and are never sold in Leh, their cultivation being limited to lower villages in the Nubera and Indus Valleys. But my further enquiries show that the rates for these staples have varied during the last five years from 20 to 16 seers per rupee, which view is supported by the table attached to my report on prices.

The above remarks will show that the prices previously reported by me are much too low as compared with the rates actually prevailing during the past five years, and will bring out a very low half assets assessment. It has also to be borne in mind that if *jinsi* grain is to be taken in future at these rates, the zamindars will consider them most unfair. I shall submit separate proposals regarding the amount and rate of the revenue

grain, but I merely want to point out here that the assumed prices are too low, and cannot fairly be adopted for collections in kind. Taking into consideration any possible fluctuations in future, I think that a rate of 16 seers for wheat and 18 seers for giram, barley and pulses would be fair. These rates give an enhancement of prices at about 16 per cent. as compared with the rates already reported. But it does not seem right at this stage to alter the prices already reported. In view, however, of the prices assumed being unduly low, I would enhance my produce estimates by 16 per cent. The produce estimates will thus work out at a reasonable figure, and half net assets assessment will not be vitiated by low rate of prices assumed.

CHAPTER VII.—CULTIVATING OCCUPANCY AND RENTS.

27. *Cultivating occupancy.*—The Statement No. 4 is appended, showing an abstract of cultivating occupancy of the tahsil. It will be noticed that about $\frac{8}{9}$ of the total cultivated area is held by assamis, the rest being cultivated by tenants. The size of ordinary assami holdings generally varies from two to three acres. The average for the whole tahsil comes to 3·7 acres but this includes big holdings of Gunpas and leading *Kalauns*, etc. The following table shows the distribution of cultivated area in large and small holdings :—

1	2	3	4	5	6	7	8	9	10	11	12
HOLDINGS NOT EXCEEDING 5 ACRES.			HOLDINGS EXCEEDING 5 ACRES BUT NOT EXCEEDING 10 ACRES.			HOLDINGS EXCEEDING 10 ACRES.			TOTAL.		
Number of holdings.	Area.	Average area per holding.	Number of holdings.	Area.	Average area per holding.	Number of holdings.	Area.	Average area per holding.	Number of holdings.	Area.	Average area per holding.
2,963	5,615	1·9	1,338	6,323	4·7	763	6,957	9·1	5,064	18,895	3·7

The average size of a holding given in the last column does not give a correct idea of the average size of an ordinary assami holding. Eliminating the area held by *Gunpas* and other big landholders, as shown in column 8, the remaining area will give average size of a holding at 2·8. It will also be noticed that majority of the agriculturists have very small holdings of the average size of 1·9. It is, however, a consolation to know that these small holdings will be safe from further partition owing to the custom of polyandry.

28. *Tenures.*—The tenures of this tahsil with proposed Tenancy Rules are given in paragraph 29 of the Preliminary Report. Recommendations of the Settlement Commissioner regarding the proposed Tenancy Rules are contained in paragraph 14 of his Review of the Preliminary Report. Orders of His Highness the Maharaja Sahib Bahadur are solicited on these rules.

29. *Rents.*—It will be seen from the Statement No. 4 that 16,899 acres, or 89 per cent. of the total cultivated area, is held by self-cultivating assamis, while 1,919 acres only are held by tenants paying rent. A fixed share of produce is paid only on 59 acres. It will also be noticed that half *batai* is the universal rate, and no other share for division of produce is known in this tahsil. The system of lump grain rents is most common and accounts for 1,093 acres. Cash rents are only paid on 332 acres.

Occupancy tenants have not been shown in the statement as *tanqih-i-hakuk* will be done in *tasdik-i-akhir* now taken in hand. I think, however, that no useful conclusions can be drawn from this rent data, as no well recognized standard of rents is traceable in any of the *ilakas* under report, and the amount of rent is determined in each case by personal relations of the landlord and the tenant. Necessary data showing cash and kind rents for each circle and class of soil has been shown, for whatever it is worth, in the form of a statement attached to the report as Appendix C. This statement gives most diverging results, and it is useless to attempt to deduce any half net assets rates from this data, a few remarks may, however, be made regarding these rents. The cash rents are generally very low and are taken only in cases when the landlord cannot insist on taking a full fair grain rent. Most of these favourable cash rents are paid to *Gunpas*, to whom some charitable assamis have transferred their assami rights over some lands while retaining possession of such lands on payment of a light cash rent. In other cases, the landlords parted with their lands on receiving a substantial consideration in the past, and levied a nominal rent only as a token of their assami right. I ordered that such nominal rents should be excluded from the rent lists, but it is difficult for the establishment to use proper discretion in such matters. As already stated *chakota* grain rents are mostly taken here. These rents vary from Rs. 3-9-0 to Rs. 10-6-5, for different soils in the second circle, which has the largest area under such rents. In other circles some of the figures appear most incongruous, and it would be waste of time to discuss them.

30. *Kamin dues*.—As stated in my preliminary report, the zamindars of this Tahsil are in many respects their own *kamins*, and hence their expenses under this head are nominal. The only agricultural *kamins* are the *shankhan* (carpenter) and the *gara* (blacksmith). They are generally paid in four different occasions, *viz.*, at the time of sowing and harvesting the crops, and at the *Shubla* and *Losar* festivals. These payments are usually small, and vary in different villages. I entrusted this business to the Assistant Settlement Officer, who made enquiries in a large number of villages and classified the dues for each circle. The statistics drawn up by him were further examined by me and found correct. Without going into details, I give below the averages drawn from these statements :—

	Seers per holding.			
First circle	24
Second „	16
Third „	9

As most of the chaks in the fourth circle belong to villages situated in other circles, no separate rates were worked out for this circle. I may add here that in addition to the payments made to *shankhan* and *gara*, further small payments are made at the harvest time to beggars and *Lámás*, especially the latter, whose dues are an indispensable charge. The *Lámás* cannot be regarded as agricultural *kamins*, but their spiritual co-operation is considered necessary to keep off heavenly calamities and untimely snowfalls and to ensure successful cultivation of crops. As these dues are invariably paid from the common heap, I make a further deduction of six seers per holding.

The following table shows the percentage of *kamin* dues in each circle :—

1	2	3	4	5	6
Assessment circle.	Yield per acre.	*Average area per holding.	Total yield per holding.	Average kamin dues per holding.	Percentage of kamin dues.
	Seers.		Seers.	Seers.	
First ...	400	2.6	10,50	30	2.9
Second ...	300	2.1	638	21	3.3
Third ...	240	2.1	510	15	2.9

* This average has been roughly taken by eliminating big holdings.

The above will show that the difference in percentage of *kamin dues* in the different circles is insignificant. Hence I would give a uniform deduction of 3 per cent. in all circles.

CHAPTER VIII.—MISCELLANEOUS STATISTICS.

31. *Tribal Distribution.*—The important divisions of the agricultural population and their chief characteristics are given in paragraph 8 of the Preliminary Report. No tribes are known here and hence no tribal statistics can be prepared. The following table compares the area held by the different races :—

Serial No.	Race.	Cultivated area in acres.	Revenue.		
			Rs.	a.	p.
1	Budhists	17,070	53,667	11	1
2	Muhammedans	1,319	3,270	0	6
3	Brakpas	485	924	15	0
4	Others	21	45	3	3

Others include a few Christians of Leh and some *Champa* assamis of Rupsho. Ladakhi Budhists are by far the most predominant class holding about 90 per cent. of the total cultivated area. Cultivation is on the whole slovenly, as little weeding is done and the soil is only ploughed once or twice. Hence crops are always mixed with a luxuriant growth of weeds except in a few villages in the lower Indus valley.

32. *Trees.*—Appendix D shows details of fruitful and unfruitful trees. Among the fruitful trees there are 40,033 apricots which is $\frac{9}{10}$ of the total number. The number of fruitful apples is 2,117. Other varieties of fruit trees are grown to a very small extent. But the above figures do not give a correct idea of the produce of fruit in this tahsil, as the fruit in the higher villages is of very inferior quality and often fails to mature. Some income from fruit is only made in the lower villages of first circle below Nimu. Most of the fruit is locally consumed, but a portion of it is brought to market at Leh and sold at very low prices. The price of apples varies from 2 to 4 annas per hundred, and apricots are sold at about half the rate for apples. Oil is also extracted from apricots, but most of this is locally consumed, and a very small portion is sold

to traders and others. I have roughly worked out the total income from fruit trees, which is shown in the following table :—

Circle.	Walnut.	Apple.	Pear.	Apricot.	Peach.	Vines.	Total.
First	582	1,131	172	21,811	63	58	...
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Rate	0 12 0	0 4 0	0 2 0	0 2 0	0 6 0	0 6 0	...
Price	438 8 0	282 12 0	21 8 0	2,726 6 0	1 15 6	21 12 0	3,490 13 6
Second	174	914	12	15,167	2	2	...
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Price	130 8 0	228 8 0	1 8 0	1,895 14 0	0 1 0	0 12 0	2,257 2 0
Third	12	82	8	2,937	...	3	...
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Price	9 0 0	20 8 0	0 0 6	367 2 0	...	1 2 0	398 2 0
Fourth	2	1	...	118	...	...	...
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Price	1 8 0	0 4 0	...	14 12 0	...	...	16 8 0
						Total ...	6,162 9 6

For reasons given in paragraph 23 of the Preliminary Report, I do not propose to place a regular assessment on fruit in this tahsil, but the income from fruit will be taken into consideration in village assessments. I may also add that no assessment was placed on fruit in Baltistan, where fruit of much superior quality is grown in almost all the principal villages. It has also to be borne in mind that the existing assessment of Ladakh is a full one, and no new burdens should be added so far as possible.

Number of unfruitful trees is also given in Appendix D above quoted, as these form a valuable asset in the village economy, and the proportion of revenue to be taken in firewood will be based on the number of unfruitful trees and forest growth in each village.

33. *Live-stock.*—No census of live-stock was apparently carried out in Sambat 1958. *Malshumari* was done by a moharrir in 1953 under the orders of the Governor of Jammu for Nubera, Khardung, Tonktse and Rupsho ilakas only, but no papers are available showing the result of this enumeration. Census of live-stock was taken as usual by the Settlement establishment during the progress of the present operations, but entries were made according to the statement of the zamindars, as the karkuns could not carry out enumeration in the different Nullahs and on hill tops, where the live-stock are taken during the summer. My enquiries in a few villages showed that the census taken by the Settlement establishment was unreliable, and special arrangements were made to take a correct census by appointments of two active local men as *kahcharai munsarims*, and making all kardars and lambardars responsible for showing all haunts of the live-stock to the munsarims. The work of these men has been found satisfactory on a further check by Settlement officials. The enumeration done in each village is attested by lambardars concerned, and villagers cannot complain of the figures being too high. No papers are available showing number of live-stock as returned in Sambat 1953, but it appears from the amount of the

grazing fees then fixed that the enumeration was not correctly done, and that the figures of the *kahcharai* moharrir were based on the statement of the zamindars, who understated the number of live-stock in all the *ilakas*. The present figures are given in the following table:—

YAK.		ZO.		LANTO.		Total.	Pony.	Ass.	Sheep and goats.	Ploughs.		
Full grown.	Young.	Full grown.	Young.	Full grown.	Young.							
2,342	369	1,975	175	3,136	497	4,028	1,175	6,869	2,348	5,467	128,889	2,771
Total.		Total.		Total.								
Yak.		Zo.		Lanto.								
Daimo.		Zomo.		Bulung.								
Young.		Young.		Young.								
Full grown.		Full grown.		Full grown.								

DETAILS.

Some of the names given in the above table require explanation. *Lanto* is the common bullock, while *zo* is a hybrid of the *yak* bull and the common cow. Its female is called *zomo*, while female *lanto* and *yak* are called *bulung* and *dimo*, respectively. Ploughing is chiefly done with *zo*. *Yak* is also occasionally put to the yoke, but it is not good for the plough and is often used for carrying in higher villages. A rough estimate of income from live-stock is worked out on the following lines :—

Making allowance for *zomos* and *dimo* not in milk, and taking into account the expenses of their maintenance, the net income from the sale of their butter and milk may be taken at Re. 1-8 per head per annum.

Bulung, Re. 1-4-0 per head from sale of milk and butter. Sheep, annas four from sale of wool and anna one from sale of young stock, total annas five; but annas four per head taken in view of the wool used for domestic purposes. Goat, annas 2 from sale of milk, annas two from sale of young stock, total annas four.

Ponies, asses and *yaks* are used in carrying, and this income will be estimated under that head. The figures of income from live-stock work out as follows :—

Name.	Number.	Income.
		Rs.
Dimos	2,056	3,084
Zomos	419	628
Bulungs	4,028	5,035
Sheep and goats	128,869	32,217
Total ... ..	...	40,964

A reference to the table given above will show that the number of ploughs is 2,771 as compared with 4,410 assami holdings while the number of *zos* is only 1,975 or about $\frac{2}{5}$ of the number of assami holdings. An ordinary assami usually keeps one *zo* for ploughing, and makes up the yoke by borrowing.

34. *Miscellaneous income.*—It is always difficult to draw up reliable estimates of miscellaneous income and those submitted by Naib Tahsildars were dismissed by me as quite untrustworthy. I give below the figures of the mis-

cellaneous income arrived at by me after making personal enquiries from various quarters :—

Source of income.	Amount.	Remarks.
	Rs. a. p-	
I.—Carrying traders' goods from Lamauru to Leh	4,000 0 0	About half the carrying done by Kargil people.
Ditto from Leh to Lamauru	1,000 0 0	Most of goods carried by Punjabi merchants via Kullu.
Carrying traders' goods from [Leh to Khardung and vice versa.	8,000 0 0	About $\frac{1}{2}$ of this goes to the villages in Ladakh and the rest to those in Khardung Ilaka.
Carrying traders' goods from [Khardung to Saser.	8,000 0 0	This income goes to the Nubra villages.
Carrying traders' goods from Saser to Khardung.	4,000 0 0	Ditto.
II.—Carrying for European visitors ... ,	4,000 0 0	
III.—Carrying for the Lhasa Mission	4,247 5 0	This income is shared by the Tanktee and Rupsho Ilakas.
IV.—Payment for service :—		
(a) Kardars	1,128 0 0	
(b) Chapraais, gardeners, dak runners, etc.	400 0 0	
(c) Local muharrirs in State offices ...	150 0 0	
V.—Wages for labour on roads and public buildings,	7,400 0 0	
Total ...	42,325 5 0	
VI.—From live-stock	40,964 0 0	
VII.—From fruit	6,162 9 6	
Grand Total ...	89,451 14 6	

35. *Transfers*.—Statistics showing area transferred cannot be of much interest as sale and mortgage are prohibited here. Transfer of land is, however, allowed in the form of *intakal-i-razamandi*, provided there is no reason to believe

that some pecuniary consideration is at the bottom of the transaction. Mutations so far attested show that 315 acres only have been transferred under the head since 1958. The total number of such mutations is 117 and the areas transferred are usually small. It is not desirable to discourage such transfers here as impoverished assamis, who have no means to cultivate their holdings, sometimes make over their lands to their more prosperous neighbours, who can afford to cultivate the soil and maintain the poor assami.

36. *Gifts to Gunpas.*—*Intakalat-i-razamandi* usually take place among relatives, and are harmless, but in a few cases I have noticed that entire holdings have been made over to *Gunpas* under *intakal-i-razamandi*. As this is a form of charitable gift sanctioned by religion, it seems needless to interfere, but it is necessary to watch the tendency of the leading *Gunpas* to acquire more lands. In the interests of peasantry this tendency should not be allowed to grow to a serious extent, as most zamindars owe large *jinsi* debts to the *Gunpas*, and it is feared that lands may pass to the *Gunpa* in the form of *Intakal-i-Razamandi*, but in reality in settlement of the large *jinsi* debts. I would, therefore, propose that the Wazir should submit in future a statement at the end of each Sambat year showing the area transferred to the *Gunpas* and should it appear that lands are passing to the *Gunpas* to a large extent, necessary measures may be taken to place restrictions on such transfers.

37. *Permanent Alienation of hak-i-kasht mustakil.*—It has come to my notice that occupancy right or *hak-i-kasht mustakil* has been transferred in many cases to traders in Leh in lieu of pecuniary consideration. The possession of land is made over to the purchaser of *Hak-i-kasht mustakil*, who continues to pay to the assami a nominal rent, often falling short of the assessed revenue. Such alienations are permanent or for a specified term of years, but in most cases the transferees manage to continue in possession of the land. Such transactions are in reality tantamount to sale or mortgage, and should be disallowed as they tend to transfer lands from the possession of the improvident peasantry to the wealthy traders of Leh. I verbally discussed this subject with the Settlement Commissioner during his last tour in Ladakh, and the following proposals were agreed to after full consideration:—

- (a). That all permanent alienations of *hak-i-kasht mustakil* hitherto made by consent of parties, should be allowed to stand, and tenants may be recorded as *kashtkar-i-mustakil* in respect of the lands so transferred.
- (b). That no permanent alienations of *hak-i-kasht mustakil* be allowed in future.
- (c). That with a view to enable a poor assami to secure assistance in cultivation of land temporary alienation of *hak-i-kasht mustakil* may be permitted, subject to a limit of 5 years.

I would request that formal sanction may be accorded to these proposals.

CHAPTER IX.—PRODUCE ESTIMATES AND HALF NET ASSETS.

38. *Share of gross produce due to the State.*—As shown in paragraph 30 a deduction of 3 per cent. has been allowed in all circles on account of the *kamin* dues. The remainder divided by two gives the rental or landlord's share, which comes to $48\frac{1}{2}$ per cent. of the gross produce. By taking a half of the rental, again we get the State share at 24.4 per cent. Appendix E is attached showing the usual details of the gross produce and the value of the State share at the rate of $24\frac{1}{4}$ per cent. The State share thus obtained has been enhanced by 16 per cent. to compensate for lowness of prices discussed in paragraph 26.

The result thus obtained is the half assets assessment.

39. *Half net assets rates.*—Taking now the half assets assessment, as given by the produce estimates for each class of soil in each circle and dividing it by the cultivated area, we get the half assets soil rates, which are shown in the following table.

Statement showing half assets assessment :—

1	2	3	4	5
Assessment circle.	Classes of soil.	Cultivated area.	Half assets assessment.	Half assets rates.
First.			Rs. a. p.	Rs. a. p.
	Majing and barjing	757	4,575 5 11	6 0 8
	Thajing	371	1,477 0 2	3 15 8
	Chas	9	11 4 5	1 4 0
	Sasik	76	74 2 5	0 15 7
	Ulthang	116	45 5 1	0 6 3
	Total	1,829	6,183 8 0	...
Second.	Majing and barjing	6,125	31,322 12 2	5 1 10
	Thajing	1,447	5,422 6 1	3 11 11
	Chas	26	33 12 1	1 4 9
	Sasik	204	121 11 8	0 9 7
	Ulthang	1,416	651 10 7	0 6 3
		Total	9,218	37,452 4 7
Third.	Majing and barjing	4,541	19,785 13 2	4 5 9
	Thajing	1,737	5,012 13 3	2 14 2
	Chas	13	12 10 7	0 15 7
	Sasik	258	189 13 11	0 11 9
	Ulthang	706	272 11 3	0 6 2
		Total	7,255	25,273 14 2
Fourth.	Majing and barjing	232	634 1 8	2 11 9
	Thajing	563	1,144 2 11	2 0 6
	Chas	1	...	...
	Sasik	103	108 8 0	1 0 10
	Ulthang	62	24 3 7	0 6 3
		Total	961	1,911 0 2
	GRAND TOTAL	18,763	70,820 5 11	...

CHAPTER X.—ASSESSMENT.

40. *Introductory*.—I do not propose to discuss my circle rates at any great length, as the assessment data necessary for such discussion are very meagre. The *báchh* rates of the expiring settlement cannot be of much value, as the current demand was not based on any revenue rates or estimates of

outturn. Uniform *báchh* rates were applied to principal villages and their higher *muballas*, which have now been placed in different classes according to their productive capacity. No attempt was made in 1958 to work out any circle rates, and the then current demand was merely modified slightly and redistributed. Under the circumstances, the current *báchh* rates must differ much from the revenue rates now adopted. The only sets of revenue rates that can be compared to the proposed rates are those adopted for Skardu and Kargil Tahsils of Baltistan, but the classification of villages adopted in these tahsils was *dehwar*, while a *muhallawar* classification has been followed in this settlement. Also a glance at the assessment reports of the Skardu and Kargil Tahsils will show that revenue rates were not correctly worked out there according to the half net assets system, and were merely assumed as a matter of discretion. These rates are distinctly low, which is probably due to the fact that the previous demand of these tahsils was too low, and the Settlement Officer could not take a very large enhancement at one time. Hence the Baltistan rates cannot be considered as a useful guide, though they may be taken to show a rough limit to which leniency can go. In assuming my revenue rates, I have been chiefly guided by my personal knowledge of the tract under report, and my estimates of its average produce. I have been busy during the last 2 years in working out rough village assessment and circle rates. The same course has been followed by Assistant Settlement Officer, who has done his village inspections very carefully. In a tract like Ladakh where assessment circles cannot be adopted on the Punjab lines, the correctness of assessments must depend very largely on careful village assessments, and the assessment data attached to my *haisiat dehi* note will show that no pains have been spared to make the village assessments as careful and complete as possible. My preliminary estimate of proposed assessment came to a little above Rs. 57,000, and in comparing notes with Assistant Settlement Officer, I found that his estimates closely approximated mine. I regret to say that I cannot quote his exact figures, as his Revenue Register has not yet been received from camp. As shown in paragraph 39 the half assets assessment comes to Rs. 70,820-5-11, viz., 20 per cent. in excess of my estimated assessment, and hence I shall reduce the half net assets rates proportionately to work out my revenue rates.

I proceed now to discuss my proposed assessments and revenue rates for each class.

41. *First Class, Summary of Statistics.*—A brief description of the classification of villages has been given in paragraph 3 of this report. The first circle is much smaller in extent than the second and third. It comprises 3 villages of Nubera and a few villages of the Indus valley below Bazgo. Even in these villages the higher *muhallas* have been placed in other circles, according to their productive capacity. The total cultivated area is only 1,329 acres, or about 7 per cent. of the total cultivation. The villages in this circle are about as good as those in Baltistan, and enjoy a moderate climate. Average area per holding is 2.8 acres which is very small. Crops are sown and harvested here much earlier than in other circles. Most of the villages are *dafasli*. The crops grown are wheat, *giram*, barley, *matar*, *kars*, beans, *sarshaf*, *trumba*, *china* and *kangni*. Tobacco and pepper are also grown in a few villages. The principal crops are wheat 22 per cent., *giram* 31 per cent., pulses 10 per cent., according to crop returns of 1964. One hundred acres of land grows on the average 107.5 acres of crops per annum, of which 1.7 only fail to mature. The *kharaba* entries cannot be regarded as average and quite reliable, as the year Sambat 1964 was exceptionally good, and full deductions for *kharaba* are seldom given by the *karkuns*. The number of live-stock is about the average, except in Dah, Hanu, Handar and Diskit, which possess large flocks of goats and sheep with extensive grazing areas.

Fruit is grown to a large extent. Apples and apricots are found in every village. Even walnuts, almonds and vines are met with in the lowest villages, though in very small numbers. The total number of full grown fruit trees is 24,101, and of unfruitful trees 27,833. This is a large asset which must be taken into account in assessing this circle. The zamindars are distinctly better off than their neighbours in other circles. They are also better cultivators, as the

longer duration of the working season gives them more time to attend to the field labours. Regular weeding is done in these villages, and rank growth of weeds is seldom seen in the crops of this circle. The lower villages have also got a taste for trading, and they usually go up to Lhasa in winter to trade in grain and fruit, which they usually barter for salt, wool and Lhasa tea.

Some villagers owe *jinsi* debts to the *Gunpas*, but their amount is much less than in other circles. The cultivators are common Buddhists, excepting those of Dah and Hanu, who belong to the Dard race, and Baltis of Beghdung who are Mussalmans.

42. *The current assessment.*—The current demand of this circle is Rs. 4,783-14-3 which has always been paid without any difficulty. Increasing this demand by 16 per cent.* roughly representing the rise in prices since settlement we get a possible demand of Rs. 5,549.

43. *Half assets estimate and proposed revenue rates.*—The half assets estimate (paragraph 39) is as follows :—

1	2	3	4
Soil.	Area in acres.	Rate per acre.	Assessment.
		Rs. a. p.	Rs. a. p.
Majing and barjing	757	6 0 8	4,575 5 11
Thajing	371	3 15 8	1,477 0 2
Chhas	9	1 4 0	11 4 5
Sasik	76	0 15 7	74 3 5
Ulthang	116	0 6 3	45 5 1
Total ...	1,329	...	6,183 3 0

The half assets demand is thus 29 per cent. in excess of the present revenue of this circle. Reducing the above half assets rates by 20 per cent. roughly representing the excess of half assets demand over my village assessments, the following rates and assessment are obtained :—

1	2	3	4	5
Soil.	Area in acres.	Half assets rate proportionately reduced.	Rates proposed.	Assessment.
		Rs. a. p.	Rs. a. p.	Rs. a. p.
Majing and barjing	757	4 13 4	4 12 0	3,595 12 0
Thajing	371	3 2 11	3 4 0	1,205 12 0
Chhas	9	1 0 0	1 2 0	10 2 0
Sasik	76	0 12 6	1 0 0	76 0 0
Ulthang	116	0 5 0	0 6 0	43 8 0
Total ...	1,329	...	...	4,931 2 0

* This increase has been calculated on the rates prevailing in Sambat 1958.

44. *Remarks on assessment and rates proposed.*—Information bearing on the above rates is collected in the following statement:—

1	2	3	4	5	6	7
Soil.	Báchh rates of Sambat 1958.	Half asseta rates.	Proposed by me.	SANCTIONED REVENUE RATES OF		
				Soil.	Skardu.	Kargil.
	Rs. a. p.	Rs. a. p.	Rs. a. p.		Rs. a. p.	Rs. a. p.
Majing ...	5 5 2	} 6 0 8	4 12 0	Majing ...	3 8 0	3 4 0
Barjing ...	3 6 11			Barjud ...	3 6 0	3 2 0
Thajing ...	1 14 9	3 15 8	3 4 0	Das ...	1 8 0	1 8 0
Chhas ...	...	1 4 0	1 2 0	...	...	...
Sasik ...	...	0 15 7	1 0 0	Brak ...	2 0 0	1 12 0
Ulthang ...	0 12 7	0 6 3	0 6 0	Ulthang ...	0 8 0	0 8 0

My proposed assessment for this circle exceeds the current demand by Rs. 147 only. A slight enhancement is necessary in this circle, as according to my classification this circle consists of the fertile principal villages only, while all the good and bad *muhallas* were mixed up in the old classification. As already discussed, I have adopted a uniform rate for *majing* and *barjing*. The *báchh* rate for *thajing* is too low, as the difference in productive capacity of *barjing* and *thajing* is not so marked. My *ulthang* rates are lower than those of Baltistan, which is due to the fact that I have only assessed one-third of this fodder crop. The *sasik* of Ladakh does not exactly correspond with *brak* of Baltistan, which is merely applied to higher hilly plots. My low rates for *sasik* are due to about two-thirds of the area of this class remaining unsown during the year.

Chhas and *sasik* were not among the classes of soil adopted in 1958, and hence no *báchh* rates of that year are given for these soils. No further discussion of the rates is necessary, as these have been deduced from well considered rates of average produce.

SECOND CLASS.

45. *Summary of statistics.*—This is the largest circle and comprises about one-half of the total area. Most of the villages are situated in a line on both sides of the Indus from Upshe to Bazgo, and have open valleys with broad fields and plenty of sun. The climate is colder than that of the first circle, and hence one crop is only grown. Average outturn is about as good in this circle as in first, provided sowings are not delayed by an unusually long winter.

Average size of a holding is only 3·7 acres, which is larger than that of the first class villages, but the size of an ordinary assami holding is less than this, as the general average has been raised to some extent by the very large holdings of the leading *Gunpas* and big landlords of Ladakh.

The principal crops are: wheat 27 per cent., *giram* 30 per cent., barley 14 per cent., and pulses 6 per cent. One hundred acres of land grows on the average 93 acres of crops in the year, of which only ·8 fail to mature. The *kharaba* entries are unduly low as usual. A marked feature of this circle is the increasing tendency to grow more wheat, in view of the higher price fetched by this staple in Leh.

The number of live-stock in this circle is below average, as the grazing areas are not extensive, except in a few villages in Nubera.

The number of fruitful and unfruitful trees is 16,379 and 223,460, respectively, but excepting 4 or 5 villages, the fruit is of a very inferior kind and is not brought to the market.

The zamindars are fairly prosperous, though most of them owe immense *jinsi* debts to the various *Gunpas* and especially to *Hemis Gunpa*, but the zamindars do not feel the pressure of these heavy debts for reasons given in the Preliminary Report. The cultivation is not of the best type, and the ploughing is generally insufficient, but the water supply is generally good and crops are fairly secure. The people are generally thrifty in their habits, their only extravagance being their habit of taking too much *chhang*. The zamindars of Leh and neighbouring villages did not escape the temptation of borrowing money from, and transferring possession of their lands to, traders of Leh (*vide* paragraph No. 37). But the practice has not gone to a serious extent and will be checked in time.

46. *Current assessment.*—The current assessment of this circle is Rs. 29,318, which has always been paid without any difficulty. This demand raised by 16 per cent. in view of the enhancement in prices since last settlement would give a possible demand of Rs. 34,009.

47. *Half assets estimate and proposed revenue rates.*—The half assets estimate is as follows:—

1	2	3	4
Soil.	Areas in acres.	Rate per acre.	Assessment.
		Rs. a. p.	Rs. a. p.
Majing and barjing	6,125	5 1 10	31,322 12 2
Thajing	1,447	3 11 11	5,422 6 1
Chhas	26	1 4 9	33 12 1
Sasik	204	0 9 7	121 11 8
Ulthang	1,416	0 6 3	551 10 7
Total	9,218	...	37,452 4 7

This half assets demand is thus 27 per cent. in excess of the present revenue of the circle. Reducing the above half assets rates by 20 per cent. roughly representing the excess of half assets demand over my village assessments, the following rates and assessment are obtained:—

1	2	3	4	5
Soil.	Area in acres.	Half assets rates proportionately reduced.	Rates proposed.	Assessments.
		Rs. a. p.	Rs. a. p.	Rs. a. p.
Majing and barjing	6,125	4 1 6	4 2 0	25,265 10 0
Thajing	1,447	2 15 11	3 0 0	4,341 0 0
Chhas	26	1 0 7	1 0 0	26 0 0
Sasik	204	0 7 8	0 12 0	153 0 0
Ulthang	1,416	0 5 0	0 6 0	531 0 0
Total	9,218	...	...	30,316 10 0

48. *Remarks on assessment and rates proposed.*—Information bearing on the above rates is collected in the following statement :—

1	2	3	4	5	6	7
Soil.	Báchh rates of Sambat 1954.	Half assets rates.	Proposed by me.	SANCTIONED REVENUE RATES OF		
				Soils.	Skardu.	Kargil.
	Rs. a. p.	Rs. a. p.	Rs. a. p.		Rs. a. p.	Rs. a. p.
Majing ...	4 0 8	5 1 10	4 2 0	Majing ...	3 4 0	3 0 0
Harjing ...	2 15 3			Barsud ...	3 2 0	2 13 0
Thajing ...	1 8 11	3 11 11	3 0 0	Das ...	1 8 0	1 4 0
Chhas...	...	1 4 9	1 0 0	...	...	...
Sasik ...	...	0 9 7	0 12 0	Brak ...	1 12 0	1 8 0
Ulthang ...	0 11 4	0 6 3	0 6 0	Ulthang ..	0 8 0	0 8 0

It will be noticed that my proposed assessments give an increase of Rs. 999 in this circle. This increase is also due to the inferior areas of the third and fourth classes being now excluded from the second circle, while the current demand was assessed on all the good, bad and indifferent *muhallas* of this circle. This increase will be more than compensated in the third and fourth circles. The rates proposed call for no further comments, as the general lines, on which they are based, have already been discussed. I have exceeded half assets rates in case of *sasik*, as by a chance large area of this class remained fallow during the year, and hence the half assets rate comes at a very low figure, which is out of all proportion to the general average obtaining in other circles. My rates for *ulthang* will be low in all cases for reasons already given.

THIRD CLASS.

49. *Summary of statistics.*—A brief description of this circle has been given in paragraph 3. This circle is next to the second in extent of its cultivated area which is 7,258 acres. The villages and *muhallas* included in this circle are scattered all over the tahsil in higher latitudes. They are mostly situated in *nullahs*, and suffer from cold winds. The winter is longer than in the first and second circles, and crops are sown late. In exceptionally cold years, crops fail to mature in the higher portions of the villages, but in average years crops are pretty secure, and in many villages of this class outturn is often as good as in the second class villages. The principal crops are wheat 17 per cent., giram 46 per cent., barley 14 per cent., and pulses 8 per cent.

One hundred acres of land grows in a year 88 acres of crops. The percentage of *kharaba* is insignificant and of little value.

The number of live-stock in the villages in Central Ladakh is rather below average, but the higher villages of Tonktse, Rong and Rupshu ilakas possess extensive grazing areas, and large numbers of goats and sheep. This pastoral asset of some of the third class villages has to be taken into account, a full discussion of which will follow under the head "grazing fee."

The number of fruitful and unfruitful trees is 3,044 and 71,883, respectively. Fruit trees are only found in a few villages, situated along the Indus Valley, and are usually apricots of a very inferior kind.

No general remarks can be given regarding the cultivators, as the villages are scattered in all the *ilakas*.

50. *Current assessment.*—The current assessment of this circle is Rs. 20,536-11-4, which has been paid without any difficulty. Raising this demand by 16 per cent. roughly representing the rise in prices since settlement, we get a possible demand of Rs. 23,823.

51. *Half assets estimate and proposed revenue rates —*

1	2	3	4
Soil.	Area in acres.	Rates per acre.	Assessment.
		Rs. a. p.	Rs. a. p.
Majing and barjing	4,541	4 5 9	19,785 13 2
Thajing	1,737	2 14 2	5,012 13 3
Chhas	13	0 15 7	12 10 7
Sasik	258	0 11 9	189 13 11
Ulthang	706	0 6 2	272 11 3
Total	7,255	...	25,273 14 2

The half assets demand is thus 23 per cent. in excess of the present revenue of the circle.

Reducing the above half net assets rates by 20 per cent. representing excess of the half assets demand over my village assessments, I obtain the following revenue rates and the assessment proposed :—

1	2	3	4	5
Soil.	Area in acres.	Half assets rates proportionately reduced.	Rates proposed.	Assessment.
		Rs. a. p.	Rs. a. p.	Rs. a. p.
Majing and barjing	4,541	3 7 10	3 8 0	15,893 8 0
Thajing	1,737	2 4 11	2 6 0	4,125 6 0
Chhas	13	0 12 6	0 12 0	9 12 0
Sasik	258	0 9 6	0 9 0	145 2 0
Ulthang	706	0 4 11	0 5 0	220 10 0
Total	7,255	...	...	20,394 6 0

52. *Remarks on assessment and rates proposed.*—Information bearing on the above rates is collected in the following statement ;—

1	2	3	4	5	6	7
Soil.	Bichh rates of Sambat 1958.	Half assets rates.	Proposed by me.	SANCTIONED REVENUE RATES OF		
				Soil.	Skardu.	Kargil.
	Rs. a. p.	Rs. a. p.	Rs. a. p.		Rs. a. p.	Rs. a. p.
Majing	5 5 2	} 4 5 9	} 3 8 0	Majing	3 0 0	2 6 0
Barjing	3 6 11			Barsud	2 12 0	2 2 0
Thajing	1 14 9	2 14 2	2 6 0	Das	1 4 0	1 0 0
Chhas ... ..	...	0 15 7	0 12 0	.....	...	...
Sasik ... ..	...	0 11 9	0 9 0	Brak	1 8 0	1 0 0
Ulthang	0 12 7	0 6 2	0 5 0	Ulthang	0 8 0	0 8 0
Total ... ..	...	...	...	.....	...	...

It will be seen that my proposed assessments fall short of the current demand by Rs. 142. The unfair distribution of the current demand will appear from the high *báchh* rates for *majing*. My proposed rates require no further remark.

FOURTH CLASS.

53. *Summary of statistics.*—This is the smallest circle, and comprises only 961 acres of cultivated, or about 5 per cent. of the total cultivated area.

It consists only of three whole villages, and the highest and the coldest portions of other villages placed in other circles. A brief description of the fourth class areas is given in paragraph (3).

Principal crops are :—

Giram 77 per cent., barley 5 per cent. and pulses 5 per cent. One hundred acres of land grow on the average 75 acres of crops. The average of *kharaba* is given at 2·6, which is too low. Cultivation is uncertain in these areas owing to intense cold and early snowfall. Also the soil is generally poor, as the cultivators generally live in the lower principal villages, and cannot give much attention to these distant and high *muhallas*.

The three whole villages included in this circle belong to the Rupshu ilaka, and possess large flocks and extensive pastures. The cultivated area of these villages is insignificant, and cultivation most perfunctory and unprofitable.

No trees can grow in the highest fourth class areas of Tanktse, Rong and Rupshu, but a small number of trees is shown against the fourth class *bruk* areas of the lower *ilakas*.

No general remarks can be given regarding the cultivators, who live in the lower *muhallas*, placed in other circles. The three whole villages are, however, inhabited by *nomadic* people, who make a living chiefly by sale of wool and other profits from their live-stock.

54. *Current assessment.*—Current assessment of this circle is Rs. 3,300-7-2 which has been easily paid. Raising this assessment by 16 per cent. for rise in prices since settlement, we get a demand of Rs. 3,828.

55. *Half assets estimate and proposed revenue rates:*—

1	2	3	4
Soil.	Area in acres.	Rate per acre.	Assessment.
		Rs. a. p.	Rs. a. p.
Majing and barjing	232	2 11 9	634 1 6
Thajing	563	2 0 6	1,144 2 11
Chhas	1	...	...
Sasik	103	1 0 10	108 8 0
Ulthang	62	0 6 3	24 3 7
Total	961	...	1,911 0 2

The half assets demand thus falls short of the current demand by 42 per cent.

Reducing the above half net assets rates by 20 per cent. we get the following revenue rates and proposed assessment :—

1	2	3	4	5
Soil.	Area in acres.	Half assets rates proportionately reduced.	Rates proposed.	Assessment.
		Rs. a. p.	Rs. a. p.	Rs. a. p.
Majing and barjing ...	232	2 8 0	2 6 0	551 0 0
Thajing ...	563	1 10 0	1 10 0	914 14 0
Chhas ...	1	...	...	...
Sasik ...	103	0 13 6	0 8 0	51 8 0
Ulthang ...	62	0 5 0	0 4 0	15 8 0
Total ...	961	...	...	1,532 14 0

56. *Remarks on assessment and rates proposed.*—Information bearing on the above rates is collected in the following statement :—

1	2	3	4	5	6	7
Soil.	Báchh rates of Sambat 1956.	Half assets rate.	Proposed by me.	SANCTIONED REVENUE RATES OF		
				Soil.	Skardu.	Kargil.
	Rs. a. p.	Rs. a. p.	Rs. a. p.		Rs. a. p.	Rs. a. p.
Majing ...	3 4 0	2 11 9	2 6 0	Majing ...	2 6 0	...
Barjing ...	2 2 9			Barsud ...	2 2 0	...
Thajing ...	1 5 3	2 0 6	1 10 0	Das ...	1 0 0	...
Chhas ...	...	...	...	.....	...	..
Sasik... ..	...	1 0 10	0 8 0	Brak ...	1 0 0	...
Ulthang ...	0 9 11	0 6 3	0 4 0	Ulthang ...	0 8 0	...
Total ...	...	...	...	.....	...	...

It will be seen that the current demand exceeds my proposed assessments by Rs. 1,768 or 115 per cent. As already explained, this large increase is due to the high and inferior *muhallas* being assessed in the present settlement at their proper value. A fair assessment could not be worked out for these *muhallas*, which in many cases have nothing in common with the principal villages without adopting a *muhallawar* classification. My proposed rates require no further discussion, except that the *sasik* and *ulthang* areas are most inferior in this circle, and hence very light rates have been placed on them. The area under *chhas* is insignificant, and has borne no crop, hence no rates have been proposed for this soil in this circle.

57. *Summary of proposals.*—I bring together here my proposals for all four circles :—

Details.	1st Circle.	2nd Circle.	3rd Circle.	4th Circle.	Total.
Current assessment omitting fractions ...	4,784	29,318	20,536	3,300	*57,938
Proposed assessment ...	4,931	30,317	20,394	1,532	57,174
Difference ...	+147	+999	-142	-1,768	-764

* These figures do not exactly correspond with the current demand, as shown in Chapter Second, which includes revenue of Mansar, and two other items.

It will be seen that my proposed assessments give a decrease of Rs. 764, or 1·3 per cent. on the current revenue on land.

58. *Assignments of land revenue.*—The proposed assessment given in the preceding paragraph includes *muafis* and *jagirs*. The figures for assigned revenue work out as follows :—

Circle.	Cultivated area in acres.	Revenue at proposed rates.
First Circle	35	150
Second Circle	2,162	6,446
Third Circle	817	2,107
Fourth Circle	92	154
Total	3,106	8,857

The revenue assigned amounts at present to Rs. 8,084, and thus the estimate of proposed assignments exceeds the sanctioned amount by Rs. 773, or a per cent. of 9·5, but the amount of *muafis* and *jagirs*, actually recommended will differ to some extent from the above estimates, which have been based on the areas entered in the name of the *Gunpas* and other assignees of land revenue. Enquiries are being made as to the title of the assignees to hold revenue-free the additional area recorded in their names, and the *jagir* and *muafi* files will shortly be submitted for orders.

59. *Jama of village Mansar.*—The village of Mansar lies in the Lhasa territories at a distance of 8 stages from the State frontier. No documents are traceable in the wazarat office showing the details of the settlement originally arrived at about this village. It is, however, commonly stated that the village marked the former boundary of the Ladakh kingdom, and that one of the Buddhist kings, while making over a part of his territories to the Lhasa Government, retained this village as an emblem of his former frontier. With the conquest the village passed on to the State, but it has never been visited by any official of this State and has remained under the administrative control of Lhasa authorities.

Khazana, kardar of Rupsho, collects some *yaks*, sheep, etc., from this village and pays Rs. 278-12-0 in cash into the State treasury, as revenue of the village. The arrangement seems unsatisfactory, as a man of less influence or physical strength may find it difficult in future to collect this revenue. I would, therefore, suggest that, if there be no objection, necessary steps may be taken to conclude some agreement with the Lhasa Government to exchange this village for one of an equivalent capacity near the State frontier. As I know little about this village no alteration in the present demand can be proposed.

60. *General remarks on proposed assessment.*—It will be noticed that the proposed assessments leave a narrow margin of 20 per cent. only, as compared with the half assets assessments. Also the assessments are distinctly high as compared with the assessments in Baltistan. Hence the proposed demand may be considered a full one, and the agricultural conditions of this country being of a stationary character, no enhancement in revenue can be expected for a long term of years in future.

On the other hand, I would note that the proposed demand cannot be regarded as unduly high, and no further reduction can be given. In this connection I would invite attention to paragraph 30 of my Preliminary Report, briefly stating my reasons for holding the above view. I would add the following to the reasons already given :—

- (a) The Ladakhis certainly derive a substantial income from carrying on the Treaty Road, the maintenance of which entails a pretty heavy expenditure on the State.

- (b) An increase of 25 per cent. (actually taken at about 20 per cent.), over the demand of 1942 was proposed by the zamindars themselves, and willingly accepted by them. The resultant assessment since remained in force till 1958, and no difficulty was experienced in payment of the revenue. This demand was slightly reduced by Mr. Clarke in 1958. During the progress of present operations, I have not received a single complaint against heaviness of the current demand.
- (c) The whole of the cultivated area is irrigated, and irrigation is generally plentiful, permanent, easy and free of cost. In average years the outturn is generally good, while in good years it beats the record of many other tracts. Many of the crop experiments, conducted last year, gave a very high outturn. Some of these were considered abnormal and rejected. Out of a total of 88 experiments 31 including abnormal experiments, gave an average outturn of 1,118 seers per acre. This view is supported by Colonel Thomson, a former British Joint Commissioner, of settlement experience, in his review of the Report of Rai Bahadar Radha Kishen Kaul, who stated the average outturn as tenfold of the seed sown, which comes roughly to about 1,000 seers per acre. The same view of average outturn is held by General Cunningham, one of the best writers on Ladakh. These estimates will show that rates of yield adopted by me are very cautious, and hence the half assets demand based thereon is moderate.
- (d) In working out my proposed demand, I have strictly followed the half net assets system, and hence the percentage of State share taken by me is necessarily moderate.
- (e) In view of the assessment on land being a full one, I have placed a very light assessment on mills and grazing, my proposed rates falling far short of those taken in Jammu and Kashmir Provinces.
- (f) The proposed assessment includes cesses, and hence the revenue proper may be taken to be about $\frac{7}{8}$ th of the proposed demand.

CHAPTER XI.—MISCELLANEOUS ASSESSMENTS.

61. *Assessment of mills.*—There being no big towns in Ladakh, and the population being mostly agricultural, the income derived from water mills is very small. In view of the different conditions of the water mills in different villages, I have classified the villages into the following three groups:—

- (a) Important villages on or near the Treaty Road, where halt is usually made by Yarkandi merchants for a few days during their journey. These villages derive a small but permanent income, though even in these there are higher *muhallas*, which use their mills only for their own requirements. Hence the water mills in the principal villages have only been assessed. The estimates of net income derived from this source are often incorrectly prepared by subordinate officials, who take no account of the wages of labour required to work the mills. But a more reliable guide in this tahsil is the rent paid to the mill-owners, which usually varies from annas 8 to Re. 1 per annum. In rare cases it goes a little higher. From this data I obtain average rates of annas 8 and 4 for first and second class mills. A more elaborate classification is not suited for this country. As stated in paragraph 37 of my Preliminary Report, the assessment of mills was not fully dealt with in Sambat 1958, but Mr. Clarke also placed a light assessment on mills in 17 villages

only. I propose, therefore, to place a regular assessment on the principal villages of this class only. The total number of such mills is 802, and my proposed assessment comes to Rs. 113-12.

- (b) *Villages with too small income.*—The villages placed in this class derive a nominal income from mills. These are comparatively big villages, and the income consists of small payments in grain made by villagers. The income is too small to be assessed, but will be taken into account in fixing village assessments.
- (c) *Villages deriving no income.*—These are small isolated villages, which use their mills for their domestic requirements only. Some villages of this class consider the mills joint property of the village and no charges are made for the use of the mills by any of the villages. I do not propose to place any assessment on these villages.

An assessment of Rs. 75-14* was placed on mills in Sambat 1958, since then Rs. 80-4 has been added for mills constructed up to date. Hence my proposed assessments exceed the current revenue on mills by Rs. 7-12 only.

The general lines above described, were adopted after a verbal discussion of the subject with the Settlement Commissioner during his last visit to Leh.

A register of mills is herewith submitted, showing necessary details for each village.

62. *Grazing fees.*—The previous history of *kahcharai* demand is given in paragraph 32 of the Preliminary Report. The result of the revision of *kahcharai* demand in 1953, was that a grazing fee of Rs. 3,317-10-6 was placed on villages of the Nubera, Khardung, Tonktse, Hemis and Rupshu ilakas, and the remaining ilakas mentioned in paragraph 3 of the Preliminary Report were practically exempted from payment of *kahcharai*. I think Mr. Clarke's report, forming preamble of the State Council Resolution No. 23, dated 25th October 1901, and recommending abolition of the grazing fees demand, and merging the same in the land revenue, was made in ignorance of the grazing conditions of the above ilakas. In the Nubera Valley, there are large areas with thick forest growth, supplying plenty of grazing for cattle and sheep, while in Tonktse, Rupshu and Hemis villages, there are extensive plateaus extending for miles, which are unfit for cultivation, but form excellent pastures, and the number of goats and sheep owned by the villagers is very large. In the remaining lower ilakas, no grazing fees are collected, but I think the omission is merely due to moharir *kahcharai* of Sambat 1954, having no time or inclination to carry out enumeration in these ilakas. It is true that the lower villages pay more attention to agriculture, and the number of live-stock, especially of goats and sheep, is generally small, but all these villages have their grazing nullahs and hill sides, and some of them possess live-stock in large numbers. Under the circumstances, the State is clearly entitled to realize grazing dues from all the villages.

Kahcharai demand cannot be based here on the extent of grazing areas, which are most extensive in some ilakas. The method of assessing *kahcharai* fees, usually followed in the State, is to base the demand on the number of live-stock. The same method has been followed here, and enumeration carried out with great care. A uniform rate of annas 8 per head for ponies, mules, yaks and zos, and anna one per head for sheep and goats, was adopted here in 1954. The rate seems fair, but the ponies and cattle cannot fairly be taxed in Ladakh. Zo is the plough bullock, while yaks and ponies are always impressed here, to supply transport for the Treaty Road and other administrative requirements. Supply of transport is the all-important question of this frontier, and every attempt should be made to increase the number of ponies and yaks. As a tax on these animals is

* *Foot Note.*—Out of this Rs. 20 were transferred to revenue on land at village assessments in 1958. My revised proposals give an increase of Rs. 34.

sure to have a discouraging effect, I propose to exempt these animals from *kahcharai* fees. The same remark will apply to the small number of asses, which are also employed in carrying, in times of high pressure. But the sheep and goats graze in the extensive pastures, which belong to the State and are free from assessment. Hence there can be no justification for exempting these animals. I do not propose to make any alteration in the present rate of one anna per head, but in view of the full assessment placed on land, I would propose some further concessions.

As explained in paragraph 32 of the Preliminary Report, it would be most undesirable, and very difficult to carry out annual enumeration of the live-stock. I would therefore propose that *kahcharai* demand may be fixed for the term of the settlement, or at least for a period of ten years subject to the condition that the fixed demand may hereafter be revised in respect of a village or villages, at the request of the villagers themselves.

It was decided by the *kahcharai* Committee, that a permanent *kahcharai* demand should be based on 75 per cent. of the average of three years' enumerations. But the census of the live-stock was not taken here during the preceding years, since Sambat 1957, and hence the figures of the present enumeration only can be adopted, I would therefore take 75 per cent. of the present figures for the villages already paying *kahcharai* fees, but would reduce the fees leviable from the remaining villages to 50 per cent. as these villages have paid no grazing fees in the past, and have to pay a full assessment on land. As already remarked, their grazing grounds are also much inferior. Roughly calculating my grazing fees demand on the above lines, I get a *kahcharai* demand of about Rs. 4,000 which gives an increase of Rs. 682, over the current demand. Thus the *kahcharai* demand will be evenly distributed, and some relief will be given to the high-lying and comparatively poor villages of Tonktse, Rong and Rupshu ilakas.

I may also add that some further leniency will be necessary, in case of a few villages, on which the combined revenue on land and grazing may appear to press too hard, I have kept in view all these considerations in preparing the above estimate, but it will be slightly altered when the demand is finally revised, on the completion of my village assessments. A register showing details of the *kahcharai* demand is being submitted to the Settlement Commissioner.

CHAPTER XII.—FINANCIAL RESULTS.

63. The financial result of the whole assessment is shown below :—

Assessment.	Current.	Proposed.	Difference.
On land	57,938	57,174	—764
Grazing fees	3,318	4,000	+ 682
Assessment of mills	106	114	+ 8
Total	61,362	61,288	—74

Thus the whole proposed assessment gives a nominal decrease of Rs. 74 only or .13 per cent.*

CHAPTER XIII.—MISCELLANEOUS.

64. *Cesses*.—For reasons given in paragraph 36 of my Preliminary Report, no cesses can be taken in this tahsil, in addition to the full demand now proposed. The *kárdárs*, *lambardars* and the *patwar* agency may continue to be paid by the State as heretofore.

* Note by Settlement Commissioner's office. (Paragraph 63).

The Settlement Officer has now reported on further check that the correct figures of current demand are as follows :—

Land Revenue	Rs.
Grazing fees	57,648
Mills	3,318
	86
Total	61,252

The differences are unimportant.

These figures do not include salt tax, or *Jama* of Mansar in Tibet.

For the finally proposed new demand see paragraph 23 of Settlement Commissioner's Review.

65. *Patwar agency.*—For reasons given in paragraph 35 of the Preliminary Report, and paragraph 19 of the Review, I propose the following scale for patwaris in Ladakh:—

No.	Rs.					
4	at 8	...	...	...	...	} Average Rs. 10 per mensem.
8	" 10	...	...	...	...
4	" 12	...	...	...	...

In addition to the above rates a local allowance of Rs. 4 should be given to foreigners only. Efforts are being made to train natives in this Settlement. A separate report will shortly be submitted to the Settlement Commissioner, showing patwar circles now proposed.

66. *Kanungos.*—The present number of field kanungos is only two which is insufficient to check girdawari and other work of patwaris in the extensive ilakas of this tahsil; I would propose the following scale of kanungos:—

No.	Rs.					
1	on 20	...	...	...	...	} Average Rs. 25 per mensem.
2	" 25	...	...	...	...
1	(Office Kanungo), Rs. 30	...	...	...	...

In addition to the above rate of pay Rs. 10 per mensem should be given as local allowance to foreigners; this being reduced to Rs. 5 in case of the natives of the country.

67. *Lambardars.*—For reasons given in paragraph 34 of the Preliminary Report and paragraph 18 of the Review I would request sanction to raise *pachotra* to 5 per cent., and to allow it in the form of a deduction, first from the grain revenue, and secondly from cash revenue due from each lambardar's holding.

68. *Kardars.*—For the reasons given in paragraph 33 of the Preliminary Report and paragraph 17 of the Review, I would request sanction to the retention of the present *kardars* at their present rate of pay, and appointment of future *kardars*, in accordance with the rules governing the appointments of *zaildars* in the Punjab. A separate report will shortly be submitted on the lines indicated in the Preliminary Report.

69. *Instalments.*—The present revenue instalments are given in paragraph 38 of the Preliminary Report. These did not appear to me suitable, but enquiries since made by the Settlement Commissioner and myself show that the *zamindars* are unanimously in favour of the present instalments which may therefore be retained unaltered.

70. *Exemption from karbegar.*—The general lines for exemption from *karbegar* were given in paragraph 40 of the Preliminary Report. Enquiries have since been made in each village, regarding all claims for exemption. As it was necessary to pass orders on these files to regulate the supply of *karbegar*, necessary orders have been issued in consultation with the Settlement and British Joint Commissioners, and regular exemption certificates given to those exempted from *karbegar*. As unwarranted exemptions seriously hinder the transport arrangements, it is necessary to control future exemptions. I would therefore solicit sanction to my proposal that no exemption should, in future, be given by local officers below the rank of Wazir-Wazarat, and that all exemptions given by Wazir-Wazarat should be annually reported to the Revenue Minister, stating reasons for each exemption.

71. *Res system.*—The *res* system was fully described in paragraph 39 of the Preliminary Report. A liberal grant of Rs. 7,500 was sanctioned last year by His Highness the Maharaja Sahib Bahadur for advances for purchase of ponies. This amount was distributed with great care among deserving *zamindars*, and there has been distinct improvement in the transport arrangements since last year. Much time and attention have been devoted to place the *res* system on a sound footing, and extensive enquiries have been carried out in all the Treaty Road villages regarding the number of transport animals and *assamis* liable to *karbegar*. On the basis of the lists thus drawn up, groups of villages have been appointed to supply labour and transport at each stage of the Treaty Road. This grouping was shown to the Settlement and British

Joint Commissioners and the general lines were approved by them, but it has been considered advisable in consultation with the British Joint Commissioner to give a trial to the new arrangements for one year, after which the revised *res* system can be confirmed, after considering any possible defects or improvements that may be suggested by the experience of a year.

The existing *res* arrangements were fully discussed by the Settlement Commissioner, the British Joint Commissioner, and myself. The suggestion made by some local officers to organise State transport was also considered, and enquiries were made from a large number of the leading zamindars. The conclusion arrived at was that a State transport organisation would be very expensive to the State, and would deprive the zamindars of a substantial income from carrying, which assisted them in payment of revenue, and that the best course in the present circumstances would be to improve the present arrangements by granting further *takāvi* loans for purchase of *yāks* and ponies, and effecting certain other improvements, which are receiving earnest attention of Captain D. G. Oliver, the present British Joint Commissioner. I take this opportunity to express my grateful thanks to the British Joint Commissioner for his unflinching support and valuable advice in all matters connected with transport and other Treaty Road arrangements. The experience of the current year has proved the necessity of granting further loans for purchase of *yāks* and ponies. As the grant sanctioned last year was distributed in five stages, from Lamauru to Leb, large number of *yāks* is still required to strengthen the most difficult stage of Khardung. Also the number of ponies in other stages is not yet quite sufficient to cope with the increasing traffic on the Treaty Road, I have, therefore, sent up a separate proposal applying for a further grant of Rs. 5,000 for distribution of *takāvis*, which I hope will receive sanction of His Highness the Maharaja Sahib Bahadur.

72. *Enquiry into proprietary rights in Ladakh.*—My views on the subject are briefly given in paragraph 29, clause 3, of my Preliminary Report. The question was further discussed by the Settlement Commissioner in paragraph 14 of his Review. The omission to make regular enquiries regarding proprietary claims was due to my ignorance of the orders of the Government of India on the subject. But under subsequent instructions from Settlement Commissioner, I made full enquiries from leading zamindars of different *ilakas*, and submitted the vernacular file, with a detailed report, No. 511, dated 23rd May 1908, but the space at my disposal does not admit of repeating the whole of this lengthy report.

The zamindars unanimously agreed to accept the status of an *assami*, provided it did not interfere with their hereditary possession of the soil and other rights hitherto enjoyed by them. As stated in my Preliminary Report, *Hak-i-Milkiat* and *Hak-i-Assami* are both foreign terms to the Ladakhis, and all they want is the fixity of tenure, as long as they continue to pay the State dues. This privilege they already enjoy in common with all other subjects of the State.

I would, therefore, urge that the status of *assami* conferred on zamindars of Ladakh in 1958 and the present Settlement may formally be sanctioned.

No *malikānā* has hitherto been realized from the zamindars or assignees of the land revenue, who are mostly religious bodies. I would, therefore, propose that in view of the assessment on land being a full one, no additional *malikānā* should now be levied, and that *malikānā* may be considered as merged in the proposed demand. Also the concession hitherto enjoyed by all the *muafidars* may be continued in future, and *malikānā* remitted as an act of charity on the part of His Highness the Maharaja Sahib Bahadur. The case of the Raja of Stoke is under separate consideration, and all questions relating to his jagir will be fully discussed in the jagir file.

73. *Irrigation projects.*—Orders have been received on this subject, and no further action is necessary at present.

74. *Kind revenue.*—I regret to say that I am not yet in a position to submit detailed proposals regarding the amount of revenue in kind to be realized in future. I intend to base my calculations on the total grain produce and the amount required for local consumption. Correct population of each village is required for the purposes of this calculation, and census was taken as usual by the Settlement establishment, but an examination of the figures showed that the returns prepared were quite unreliable. Probably the zamindars misunderstood the motives for taking this census, and understated the figures of population. I have ordered a very careful second census, the returns of which will be prepared in a month or so. On receipt of this data a detailed report shall be submitted on the subject.

75. *Term of Settlement.*—As stated elsewhere, there is not much room for further extension of irrigation without State aid, and cultivation has nearly reached the end of its tether,

Hence the term of Settlement should be a very long one. I personally think that a term of 40 years, or even more, will be suitable, but an unusually long term will not probably be considered desirable by higher authorities. I would, therefore, propose that 30 years may be fixed as the term of the Settlement, subject to further extension, if considered desirable, and that effect may be given to the new assessments from Rabi of 1966.

76. *Notice of officials.*—It is my pleasant duty to bring to the notice of higher authorities the excellent work done throughout the progress of the Settlement operations by Sardar Thakar Singh, Assistant Settlement Officer, who has checked the measurement and *takmil* work very carefully and rendered material assistance in all important matters relating to the Settlement, in addition to which he has worked hard in connection with distribution of *takāvis* and revision of *begar* and *res* arrangements.

Pandit Anant Ram, Settlement Tahsildar, deserves credit for his untiring zeal in checking the work of his subordinates. His inspections of the field and *takmil* work have been intelligent and exhaustive, and his general behaviour and strict honesty are commendable.

All the Field and Office Naib Tahsildars have done their best and maintained a standard of honesty for which the zamindars of all the different *ilakas* are very grateful.

My Head Clerk (Office Naib Tahsildar) Qazi Hassan-ud-din has been a great help to me in checking the store accounts and preparing assessment statistics in addition to his ordinary work which he has always done honestly and well,

77. *Points requiring orders.*—Orders are requested on the following matters (abstract* in tabular form appended):—

Paragraph 2.—Settlement of boundary with Tibet.

Paragraph 3.—Classification of villages.

Paragraph 10.—Arrears.

Paragraph 28.—Tenancy Rules.

Paragraph 32.—Exemption of fruit trees from assessment.

Paragraph 36.—Gifts to Gunpas.

Paragraph 37.—Permanent alienation of *Hak-i-kasht mustikil*.

Paragraph 43 }

Paragraph 47 }

Paragraph 51 } —Proposed assessment on land.

Paragraph 55 }

Paragraph 57 }

* Not printed.

Paragraph 59.—Village Mansar.

Paragraph 61.—Assessment on mills.

Paragraph 62.—Grazing fees.

Paragraph 64.—Cesses.

Paragraph 65.—Patwar agency.

Paragraph 66.—Kanungos.

Paragraph 67.—Lambardars.

Paragraph 68.—Kardars.

Paragraph 69.—Instalments.

Paragraph 70.—Exemption from karbegar.

Paragraph 71.—Res system.

Paragraph 72.—Proprietary rights.

Paragraph 75.—Term of Settlement.

October 1908.

KHUSHI MUHAMMAD,

SETTLEMENT OFFICER,

Ladakh.

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REVIEW

OF THE

Assessment Report of the Ladakh Tahsil.

1. *Report, paragraph 1.*—I received this Report towards the end of October, when I had an opportunity of discussing the proposals with the Settlement Officer before I left Srinagar; since then my time in camp has been fully occupied with other work, and I have been unable to dispose of the Report earlier. I regret that it has not been possible to include Zanskar in this Report; for many reasons this would have been much the most convenient course. The delay in obtaining the Zanskar figures was however unavoidable, being due to the abnormal shortness of the working season there last year.

The arrangement of subjects in the Report is a little inconsequent, but beyond collecting together the miscellaneous proposals not relating to assessment, I have thought it best to follow the same arrangement.

2. *Report, paragraph 3.*—I have not much to add to the Settlement Officer's remarks in paragraph 3 regarding the classification of villages for assessment. The system adopted here differs from that followed in Baltistan in that each *muhalla*, (hamlet or large block of cultivation), has been classed separately, whereas in Baltistan each village was classed as a whole, with somewhat unsatisfactory results. The complications caused by the method followed here are rather considerable, but are of no moment if due care is taken; and the classification is a valuable aid to proper village assessments, and will afford great assistance in assuring a fair internal distribution over holdings.

For the purposes of an Assessment Report, however, this method of classification is not as satisfactory as the ordinary method of assessment circles; and it has necessarily to be abandoned in dealing with those statistics which do not relate to land or crops.

3. *Report, paragraph 4.*—The soil classification is fully described in paragraph 25 of the Preliminary Report. There is less difference here between the different classes of land than is usually the case; all alike are irrigated, for without irrigation nothing can grow. *Mazhing* and *barzhing* differ from a religious point of view only, and together form the backbone of the cultivation: *thazhing* is the distant land and is much poorer, though it is often hard to say where *barzhing* ends and *thazhing* begins: *Sasik* is the poorest land of all, yielding one crop every few years: *ulthang* is the fodder-growing land, the *ul*, usually called lucerne, being really, I understand, a kind of clover. *Chhas*, (the vegetable plots, always very small), is unimportant. The classification is well understood by the people.

For assessment purposes there are practically only four classes, *barzhing*, *thazhing*, *sasik*, and *ulthang*; the Settlement Officer has framed separate rates for *chhas* as well, though this was hardly necessary.

4. *Report, paragraphs 8 and 9.*—The Settlement of 1942 was something more than a summary Settlement. The assessments then fixed worked sufficiently well, though the orders of the Durbar accepting an all-round enhancement of 25 per cent., and rejecting the proposals of the Wazir, necessarily resulted in a very unfair distribution of the demand. They were revised in 1958 by Mr. Clarke, who had no time to become fully acquainted with the country; his proceedings resulted in a small reduction of the demand.

The Settlement Officer says that there has never been any difficulty in paying the current demand, a statement which I do not altogether endorse, but as a whole the present assessments, though full, are certainly not oppressive.

Report, paragraph 10.—Of the trifling arrears outstanding Rs. 79-12-0 should be remitted as proposed, leaving Rs. 98-1-8 for recovery. The former amount includes Rs. 3-12-0 which is really house rent, with which the Settlement

Department has no concern, but as it seems to have been treated as land revenue, and is evidently irrecoverable, it may be disposed of on this Report.

I again invite attention to the Tasfiya Baqaya cases, to which I referred in paragraph 21 of my Review of the Preliminary Report, and would repeat that these cases should be disposed of before the new assessment takes effect.

5. *Report, paragraph 11.*—The large decrease in the total area measured is of no practical interest. The decrease of 16·8 per cent. in the area recorded as cultivated is also entirely artificial, and is due to more accurate record now. Cultivation is practically stationary (though there has been a trifling increase since 1958), and must remain so, unless State-aided irrigation schemes are carried out; that is mainly a question of funds, and the Kurbathang project in Kargil having been approved, similar schemes in Ladakh will probably have to wait their turn.

It will be observed that 787 acres of *bedzar* and poplars in possession of the zamindars has now been recorded against 74 acres at last Settlement, when it seems to have been supposed that almost all tree plantations were held by the State; this mistake has now been put right.

The cultivation is distributed as follows:—

Mazhing and barzhing	...	...	...	...	...	62 per cent.
Thazhing and sasik	...	...	...	...	...	25½ "
Ulthang	...	...	...	...	...	12½ "

I observe from paragraph 12 that areas granted as *chaks* under Regulation No. VI, have been excluded from the Report. It is no doubt best to keep them out of the calculations, but they should have been mentioned in the financial results. The area is very small, as shown by the figures in paragraph 14, and the omission is immaterial.

Report, paragraph 13.—Of the assessable area nearly half is included in the 2nd circle, and 38 per cent. in the 3rd, the best and worst circles being both very small.

6. *Report, paragraph 15.*—The remarks regarding recent harvests are somewhat inadequate; 1964 and 1965 were very good years; 1963 bad in some of the high villages, fairly good elsewhere; and 1962 bad, especially in the higher villages. The cropping is practically secure; the country has naturally its good years and its bad ones, but widespread scarcity due to general crop failure is unknown. Some of the higher tracts, however, suffered from scarcity in 1963 and ought to have received suspensions.

Report, paragraph 16.—The basis of the produce estimates is the crop return of a single year, 1964, when the crops were much above the average. The Settlement Officer has fully explained the reasons, which are, briefly, that reliable returns are not available for any other year, and that the area cropped varies so little, that there would be little to gain by taking the average of several years.

Report, paragraph 17.—Comparison with the statistics of 1959 is not perhaps very useful. As there has been a nominal decrease of 16·8 per cent. in cultivation, the crop figures of 1958 are to that extent exaggerated: making allowance for this, the crop returns show a material increase in the area under wheat between 1959 and 1964, owing no doubt to the demand on the Treaty Road: the increase in *giram* to which Settlement Officer refers is not shown by the figures, which on the contrary show a slight decrease in this crop.

The *kharaba* figures for previous years are obviously worthless; only 34 acres (·2 per cent.) was recorded as failed in 1962, a bad year. The crop inspections, except perhaps in villages near the road, were of a most perfunctory character until the Settlement operations began. Moreover when crops fail at all badly, the failure frequently occurs owing to early cold or snow in the high villages when the crop is ripening, and this may easily happen after the *patwari* has been round and has recorded the crops as 'matured', as they then seemed to be. It is difficult to estimate the average amount of *kharaba*; but I am inclined to think that it may be as high as 10 per cent. in the 4th circle, 7½ per cent. in the 3rd, and perhaps 5 per cent. and 2½ per cent. respectively in the 2nd and 1st.*

*I have since been informed by the Settlement Officer that in his opinion *kharaba* does not exceed 4 or 5 per cent. all round in average years.

7. *Report, paragraph 18.*—The system of cultivation is sufficiently described in the Report; as regards rotation of crops it is of interest to note that the people understand the restorative properties of leguminous crops. Cultivation is rather slovenly, or would be, if the conditions were different, but the land does not need much ploughing, and weeds are not very rampant as a general rule. Watering and manuring receive full attention. Great waste seems to occur in sowing, the amount of seed used being apparently far more than is necessary, but without practical demonstration the people cannot be expected to alter their opinions on this point, which is one of some importance in a country where food grains are scarce. The sum of Rs. 100 per annum asked for to assist Mr. Peter of the Moravian Mission in making agricultural experiments was not sanctioned in time for him to do anything this year, and he will be on leave in 1909, but it is hoped that he will be able to carry out some experiments in 1910 and following years.

8. *Report, paragraph 19.*—The Settlement Officer condemns his crop experiments, and I can only join him in doing so, as they were both insufficient and badly distributed. He has explained what the special difficulties were. I agree with him that the rates of yield assumed in Baltistan are not a very reliable guide, and that he has rightly paid most attention to the results of his personal enquiries and observations.

Report, paragraph 20.—I have considered to the best of my ability all that he has written in support of the rates of yield which he has assumed; his proposals are evidently the result of careful enquiry and full consideration of all the data available, and I propose no alterations, though I think the rates assumed are moderate; but on the other hand it has to be remembered that insufficient *kharaba* has been recorded.*

Report, paragraph 24.—I agree to the proposal to assess one-third of the *ul* area, so far as it concerns the 1st and 2nd circles. In the 3rd circle it might perhaps have been left unassessed, as it is not used to any appreciable extent for profit. In the 4th circle *ul* is very little grown. The rate of produce assumed, 500 seers per acre of *green* fodder, seems extremely low, but *ul* is usually grown on uneven stony areas, and is often a very thin patchy crop.

Report, paragraph 25.—The rate of Rs. 5 per acre assumed for vegetables is, I believe, too high, at any rate for outlying villages where nothing in that line is produced except inferior turnips. In my opinion half that amount would be enough; but the produce estimate would be so slightly affected that it is not worth while to make alterations.

9. *Report, paragraph 26.*—The question of prices is discussed at considerable length; the Settlement Officer has quoted my remarks on his previous report to the effect that the rates proposed were probably low, and has given some additional information, mainly the result of his experience in making State purchases of grain, in support of his present opinion that the commutation prices previously proposed should be raised by 16 per cent.

* The following comparison with the rates assumed by Mr. Diack in Kulu (Settlement Report of 1898) will be of interest: Lahul and Spiti, especially the latter, appear from the descriptions to closely resemble Ladakh, which they adjoin:—

Crop.	LADAKH BARZHING RATES.				KULU.		REMARKS.
	I.	II.	III.	IV.	Lah	Spiti.	
Giram	420	410	380	260	320	270	No accurate survey was made in Spiti. Mr. Diack considered the true area to be $\frac{1}{2}$ to $\frac{1}{4}$ greater than that recorded.
Wheat	400	395	350	230	300	212	
Trumba	300	240	192	...	240	162	
China ... ..					...	252
Kangni ... ..					...	...

The Leh prices quoted now for the years 1961-1963 differ considerably from those reported before (a difference which should have been explained), and the rates for 1964-65 have been added.

It will be observed that a large rise in prices at Leh took place between 1961 and 1963 (80 per cent. in wheat and 50 per cent. in *giram*, etc.), and these enhanced prices have been maintained during 1964 and 1965. The rise was probably due partly to bad harvests and partly to increased traffic on the road; possibly also to some extent to the Settlement operations; and although good crops have not yet sent prices back towards their former level, it is improbable that continued good harvests will not have some effect in that direction in time, especially if there is any slackening in the trade on the Treaty Road; an event which is quite possible.

The prices assumed in the Preliminary Report are no doubt rather low, as I remarked at the time; but I do not think it is necessary to alter them, or (what amounts to the same thing) to enhance the produce estimate as proposed by Settlement Officer. He has perhaps been influenced a little by the consideration that as he says "the prices previously reported will bring out a very low half net assets assessment". If so, he is wrong: prices should be assumed according to the facts and probabilities ascertained, without regard to the result they may give in the produce estimate.

My conclusion is that the proposed enhancement of the produce estimate by 16 per cent. is not justified; it should be borne in mind that the prices assumed should be such as to represent the lowest rates which are likely to prevail for any considerable period during the term of the new Settlement. In this remote country prices depend almost entirely on local circumstances, and it seems to me unsafe to assume that the local circumstances will be such as to maintain prices at or near their present level indefinitely.

It does not necessarily follow that the commutation prices assumed for the produce estimate, should be employed also in reckoning the cash value of the revenue paid in kind; they would be a factor to take into consideration, but not the only one. The point however will be dealt with separately.

Before quitting the subject of prices, I draw attention to the Settlement Officer's statement in paragraphs 42, 46, 50 and 54, that prices have risen 16 per cent. since Settlement; he has not entered into details in the Report, but in reply to enquiry informs me that this estimate is based on a rough comparison of the statements printed with my Review of the Preliminary Report. The information available is not sufficiently exact to require much discussion of the point, but I think it may safely be said that prices have risen to this extent (and probably more) since last Settlement.

10. *Report, paragraph 27.*—The average holding of the ordinary *asami* (excluding *gunpas* and other large land-holders) is less than 3 acres; Holdings; cultivating occupancy; rents. and the bulk of the holdings average no more than 1.9 acres; probably most of these small holdings would be insufficient to support the *asamis* and pay the revenue without the aid of their earnings on the Treaty Road.

Report, paragraph 29.—Nine-tenths of the land is cultivated by the *asamis* themselves, and the remaining tenth is no doubt almost entirely included in the large holdings of *gunpas*, etc. Only 3 per cent. is held on *batai* rents, the rate being invariably half produce; this insignificant area forms the point on which the half net assets estimate is balanced; but, as will be seen below, such an estimate is not required, and the insecurity of its foundation is therefore immaterial. The Settlement Officer has given reasons for not paying much attention to the cash rents and fixed grain rents (2 per cent. and 6 per cent. respectively of the cultivation); I shall not therefore notice them in detail: so far as they go they furnish evidence that the proposed demand is not too heavy, but the evidence is of very little value.

11. *Report, paragraph 30.*—The estimate of the payments from the common heap to agricultural menials is 3 per cent. of the gross produce. This seems to be correct; the point is not important, as half-net assets will not be the standard of assessment.

Report, paragraph 31.—About 90 per cent. of the land is held by ordinary Ladakhi Buddhists; 7 per cent. by Musalmans, mainly Baltis; and 2½ by Brukpas, who are people of Dard extraction with rather peculiar customs. The people are only fair cultivators. The Champa nomads, who live in flimsy blanket-tents all the year round at an elevation of 14,000 feet and over, hold very little cultivated land, depending on their live-stock.

The population is briefly described in paragraph 8 of the Preliminary Report; I did not comment in my Review on Chapters I and II of that Report, and the erroneous statement that the population is 139 souls per square mile of cultivation passed unnoticed. The correct figure taking the census of 1901 and the cultivated area now ascertained is 1,070 souls, which is high but not extraordinarily high for a hill country*; notwithstanding the custom of polyandry the population appears to be increasing.

12. *Report, paragraph 32.*—The number of fruit trees recorded is rather astonishing, and is much larger than I supposed when I recommended, in my Review of the Preliminary Report, that these trees should not be assessed. Nevertheless I adhere to that recommendation, believing that any separate assessment of trees in such a country as Ladakh would be a gross mistake: the existence of these trees and the profits derived from them should however be borne in mind in fixing the general and village assessments.

13. *Report, paragraph 33.*—The tahsil is well supplied with live-stock; especially sheep and goats, the approximate number (all sexes and ages) per square mile of cultivation being yaks 185, zos 89, lantos 232, total horned cattle 506; ponies 113, donkeys 195, sheep and goats 4,368; over ¼ of the yaks, over ⅙ of the sheep and goats, and about ⅕ of the ponies are held by the practically landless Champa graziers, under other heads they have little or nothing.

The number of ploughs, about one for every 7 acres, seems very low considering how small the holdings are. The Settlement Officer explains that neighbouring *asamis* are wont to combine to make up a yoke of plough cattle.

The following figures relating to recently assessed tahsils in the Jammu Province will be of interest for comparison with those stated above, although these tracts are of course quite different from Ladakh:—

Tahsil.	NUMBER PER SQUARE MILE CULTIVATED.			
	Horned cattle.	Horses and mules.	Goats and sheep.	Ploughs.
Riasi	1,067	8	556	123
Rajauri	747	13	503	126
Ladakh	506	308	4,368	94

The estimated income from live-stock (other than baggage animals) is Rs. 40,964, rather a high figure. It is based on sales in Leh, and on the "cattle-rents", that is the amount paid by zamindars for the use of cattle belonging to others made over to them for custody and use; such an arrangement is not infrequent near Leh. The estimate may be suitable for the villages within reach of Leh, but I doubt somewhat whether an income of this amount is obtained in the more distant places; amongst the Champas particularly there is, however, much bartering of *ghi*, wool, etc., for grain, salt, and other commodities.

* The corresponding figures for Kotli and Rajauri are 846 and 948.

Miscellaneous income.

14. *Report, paragraph 34.*—Miscellaneous income is estimated as follows :—

								Rs.	a.	p.
Transport	...	...	...	...	...	...	...	33,247	0	0
Service	...	...	...	...	...	...	...	1,678	0	0
Labour	...	...	...	...	...	...	...	7,400	0	0

in addition to Rs. 40,964 from live-stock, and Rs. 6,162 from fruit already discussed.

15. *Report, paragraphs 35, 36.*—Transfers for value are prohibited now.

Land transfers and debt.

As regards gifts to *Gunpas*, I agree with the Settlement Officer that this

tendency should be watched, as the Ladakhi Buddhists are entirely in the hands of the *lamas*, and it is not at all desirable that the influence of the *Gunpas*, already so great, should be employed in increasing their holdings to any large extent. As suggested by the Settlement Officer an annual report on the subject should be submitted in future; no other action is required at present. About one-tenth of the cultivation is at present held by *Gunpas*.

Report, paragraph 37.—As regards transfers of cultivating right the Settlement Officer correctly states the result of my discussion of this question with him at Leh; but the matter having since been considered by a small Committee at Srinagar, I now recommend that the proposals agreed to at that meeting (which differ slightly from those made in the present Report), should be made applicable to Ladakh as well as Kashmir. A copy of the recommendations of the Committee is attached. (See Appendix I).

The total unsecured debt (excluding *Champas*) is reported to be Rs. 33,464 cash, and 1,08,501 maunds of grain: this is a large amount, but fortunately the *Gunpas*, which finance the *Zamindars*, are not harsh in their money-lending transactions, and much of the debt is really nominal.

16. *Report, paragraph 38.*—The Settlement Officer has made a mistake

Standard of assessment.

in assuming that the standard of assessment is half-net assets; he was

under the impression that there is a ruling of the Government of India that this standard should be adopted in all the State Settlements; but that is not the case, as he might have informed himself by referring to recent reports on Kashmir.

In Kashmir 30 per cent. of the gross produce was taken as a convenient standard, but there is an important difference between Kashmir and Ladakh, *viz.*, that in the former State claims the right to take in kind, and used actually to take, half of the gross produce. Although the right of ownership is reserved to the State in Ladakh also, the *Durbar* has never taken or claimed a half share of the produce: *asami* right in Ladakh, though it is not ownership, is rather closer to ownership than it is in Kashmir. Moreover Ladakh is a Frontier District, entitled to consideration on that account, and also on account of its climatic disadvantages.

The conclusion would be that something between half-assets (which work out at the high figure of 24.4 per cent.), and the Kashmir standard of 30 per cent., should be adopted here. I should have been inclined to take a figure very close to the half-assets standard, namely 25 per cent., partly for the reasons stated above for treating Ladakh leniently, and partly because it is difficult to find any other convenient fraction between the limits stated: but in consideration of the fact that no separate cesses are proposed here, and that the *tahsil* will be treated leniently in some other ways, it will not be unfair to assume 30 per cent. of the gross produce as the standard of assessment for *land revenue and cesses combined*. Cesses are usually $12\frac{1}{2}$ per cent. on the revenue, but for the reasons given in the Preliminary Report, paragraph 36, it would not be proposed in any case to take road and school cesses in Ladakh. It will be near enough to assume that $\frac{1}{10}$ th of the standard assessment represents cesses, leaving 27 per cent. gross produce to represent the land revenue proper. This is a fairly high standard.

17. As stated in paragraph 9 above, I do not propose to take the increase of 16 per cent. on account of

Standard rates and assessment.

prices which the Settlement Officer

has made in his estimates; and taking 30 per cent. of the thus unmodified gross produce estimate, I obtain the standard rates and assessment shown in the following table :—

Standard Assessment.

Assessment Circle.	Classes of land.	Area in acres.	Half-Assets Assessment proposed by Settlement Officer.				THIRTY PER CENT. STANDARD ASSESSMENT PROPOSED BY SETTLEMENT COMMISSIONER.											
			Rate per acre.		Assessment.	Rate per acre representing.		Assessment.	Cesses.		Total.							
			Rs. a.	P.	Rs. a.	P.	Rs. a.	P.	Rs. a.	P.	Rs. a.	P.						
First	Mazhing and Barzhing	757	6	0	8	4,575	5	11	5	12	9	0	10	4	6	7	1	4,880
	Thazhing	371	3	15	8	1,477	0	2	3	13	2	0	6	9	4	3	11	1,575
	Chas	9	1	4	0	11	4	5	1	3	2	0	2	2	1	5	4	12
	Sasik	76	0	15	7	74	3	5	0	14	11	0	1	8	1	0	7	79
	Ulthang	116	0	6	3	45	5	1	0	5	11	0	0	8	0	6	7	48
	Total	1,329	...	...	...	6,183	3	0	...	...	...	...	...	...	...	...	...	6,594
Second	Mazhing and Barzhing	6,125	5	1	10	31,322	12	2	4	13	0	0	8	7	5	5	7	33,405
	Thazhing	1,447	3	11	11	5,422	6	1	3	9	7	0	6	5	4	0	0	5,783
	Chas	26	1	4	9	33	12	1	1	3	10	0	2	3	1	6	1	36
	Sasik	204	0	9	7	121	11	8	0	9	2	0	1	0	0	10	2	130
	Ulthang	1,416	0	6	3	551	10	7	0	5	11	0	0	8	0	6	7	588
	Total	9,218	...	...	...	37,452	4	7	...	...	...	...	...	...	...	...	...	39,942
Third	Mazhing and Barzhing	4,541	4	5	9	19,785	13	2	4	2	11	0	7	5	4	10	4	21,101
	Thazhing	1,737	2	14	2	5,012	13	3	2	2	4	0	4	11	3	1	3	5,346
	Chas	13	0	15	7	12	10	7	0	14	5	0	1	7	1	0	0	13
	Sasik	258	0	11	9	189	13	11	0	11	4	0	1	3	0	12	7	203
	Ulthang	706	0	6	2	272	11	3	0	5	11	0	0	8	0	6	7	291
	Total	7,255	...	...	...	25,273	14	2	...	...	...	...	...	...	...	...	...	26,954
Fourth	Mazhing and Barzhing	232	2	11	9	634	1	8	2	9	11	0	4	8	2	14	7	676
	Thazhing	563	2	0	6	1,144	2	11	1	15	2	0	3	6	2	2	8	1,220
	Chas	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Sasik	103	1	0	10	108	8	0	1	0	2	0	1	10	1	2	0	116
	Ulthang	62	0	6	3	24	3	7	0	6	0	0	0	8	0	6	8	26
	Total	961	...	...	...	1,911	0	2	...	...	...	...	...	...	...	...	...	2,038
	GRAND TOTAL	18,763	...	...	...	70,820	5	11	...	...	...	...	...	...	...	...	...	75,528

Note.—The half-assets assessment is that worked out by the Settlement Officer, viz., 2½ per cent. of the gross produce enhanced by 16 per cent. for prices. The 30 per cent. standard assessment is calculated on the gross produce estimate not so enhanced; cf. para. 9 of Review.

The only remarks I have to make about these estimates are that on the one hand the rates of yield assumed are cautious, and the prices rather low; while on the other hand the area of crops matured is exaggerated in our records, particularly in the colder circles. The result is that the estimate is on the whole certainly on the safe side, especially in the first two circles.

18. As I have already remarked the system of classification of villages adopted in the place of Assessment Circles is of value chiefly in distributing the demand which may be fixed over villages and holdings; it is not of much use in presenting the general proposals for the orders of the Durbar. Thus it will be seen that the Settlement Officer has been driven to take the same proportion of his half-assets assessment in each of the four circles. The reason is that each village is to be assessed as a whole, and that there are hardly any villages which do not extend over 2 or more circles.

For these reasons I find it unnecessary to discuss at length the assessments proposed for each circle separately; any modifications introduced would affect all circles alike.

The following is a summary of the revenue rates proposed by the Settlement Officer, which may be sanctioned.

Class of land.	Detail.	CIRCLE.			
		I.	II.	III.	IV.
		Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Mazhing	{ Revenue rates, Skardu *	3 7 0	3 3 0	2 14 0	2 4 0
	{ Ditto, Kargil *	3 8 0	2 14 6	2 4 0	...
Barzhing	{ Proposed here	4 12 0	4 2 0	3 8 0	2 6 0
	{ Revenue rates, Skardu †	1 12 0	1 10 0	1 0 0	1 0 0
Thazhing	{ Ditto, Kargil †	1 10 0	1 6 0	1 0 0	...
	{ Proposed here	3 4 0	3 0 0	2 6 0	1 10 0
Chhas	Ditto	1 2 0	1 0 0	0 12 0	...
Sasik	Ditto	1 0 0	0 12 0	0 9 0	0 8 0
Ulthang	Revenue rates, Skardu and Kargil	0 8 0	0 8 0	0 8 0	...
	Proposed here	0 6 0	0 6 0	0 5 0	0 4 0

With the above may be compared the all-round standard rates per acre assumed in Lahul and Spiti, Re. 1-12-0 and Re. 1-8-0 respectively, lower even than the *thazhing* rates assumed here; and the actual assessment was lower still.

For the reasons stated in the Report the old *bachh* rates do not deserve attention, and are not therefore quoted. It is also unnecessary to show separately the Settlement Officer's half-net assets rates, or the standard rates proposed, as the proposed rates are in almost every case approximately 20 per cent. below the former and 24 per cent. below the latter; the exceptions are the Sasik rates in the 2nd and 4th circles, where the difference has been explained by the Settlement Officer.

The next table collects information regarding the land revenue demand, present and proposed:—

Circle.	I.	II.	III.	IV.	Tahsil.
Reference to report paragraphs	41—44	45—84	49—52	52—56	57
Current demand	4,776†	29,273†	20,505†	3,294†	57,848
Half-assets, 24·4 per cent. gross produce	6,185	37,452	25,274	1,911	70,820
Standard demand (30 per cent. gross produce)	6,594	38,942	26,954	2,038	75,528
Percentage of half-assets on current demand	129·4	127·9	123·2	58·0	122·4
Percentage of 30 per cent. standard on current demand.	138·0	136·4	131·4	61·9	130·5
Assessment proposed	4,825†	29,672†	19,960†	1,506†	55,963
Increase	49	399	...	...	...
Decrease ... ..	...	...	545	1,788	1,885

* Mean of *Majing* and *Barsud*.
† Approximate figures.

† Mean of *Das* and *Bruk*.

The all-round rate per acre cultivated of the assessment proposed works out at nearly Rs. 3 : with this may be compared the all-round rates in Lahul and Spiti, Re. 1-8-7 and Re. 1-7-9 ; in those *ilagas* cesses were imposed in addition to the revenue at Rs. 19-9-4 per cent. thereon ; but on the other hand the assessing officers believed the true cultivated area in Spiti to be much larger than reported. Making all allowances I estimate that the assessment proposed here is not much less than twice as heavy as that taken in Lahul and Spiti.

19. *Report, paragraph 60.*—The assessment current and proposed is much higher than that in Baltistan : natural advantages are not altogether on the side of Baltistan ; and natural advantages apart, the Ladakhis are certainly more prosperous than the Baltis, though Dr. Francke, an impartial observer who knows both tracts very well, states that they are markedly inferior in this respect to their fellows in Lahul and Spiti, the adjoining tracts of British territory*. The income from transport on the Treaty road and elsewhere affords valuable assistance, as do also the profits derived in other ways from live-stock. The Settlement Officer says that he has not heard a single complaint of over-assessment ; this is not my own experience, but I agree with him that the demand as a whole is by no means oppressive, though relief is certainly required here and there. I can also endorse what he says about the extraordinarily high outturn obtained when all goes well. Finally it has to be remembered that the revenue demand includes cesses, (an arrangement which it is proposed to retain), and that the demand, present and proposed, on account of grazing fees and mills is extremely moderate. The people therefore appear to me to have nothing to complain of, although the assessment is a full one for a country of this character. The fact that a considerable part of the revenue will be realized in kind, always a troublesome arrangement, is an argument against too full an assessment.

Some regard should also be paid to the very lenient Settlement in force in the adjoining *ilagas* of Lahul and Spiti.

Large reduction in the demand is certainly not called for ; at the same time I think that Ladakh is not a country which it would be wise from any point of view to treat hardly ; and if careful consideration of the village assessments points to a small reduction, (as is the case), that reduction should not be objected to.†

20. *Report, paragraph 61.*—I support the proposals for assessment of water mills, though I entertain some doubt whether it is worth while to assess them separately at all ; the rates of Re. 1 and annas 8 per mill proposed for those to be assessed are high enough in view of the very low rents at which such mills are leased.

As regards assessment of fruit trees see paragraph 12 above.

21. *Report, paragraph 62.*—The *Kahcharai* proposals are well considered, and have my support. They are that nothing be taxed except sheep and goats, (as increase in the number of yaks, ponies, plough-cattle, etc., ought to be

* " Since 1842 the country has made little progress. This is even observed by the natives, who compare other portions of Western Tibet which have come under British rule, in particular Lahul, with their own country ; and the difference between the two districts economically is surprising". (Francke, History of Western Tibet, 1907, page 168).

† The Settlement Officer has referred in paragraph 60 of his Report to the views of " Colonel Thomson, a former British Joint Commissioner, of Settlement experience, in his Review of the Report of Rai Bahadur Radha Kishen Koul". I have not been able to find the Report referred to. As regards Colonel Thomson there seems to be some misapprehension ; I have a copy of his remarks, which are in support of the view that Rai Bahadur Radha Kishen's proposed assessments were not excessive ; he signs himself " Colonel B. S. C.", (which the Settlement Officer seems to have read 'B. J. C. '), "late Settlement Officer, Central Provinces", and seems to have been a visitor, taking an intelligent interest in the country, but without any official connection with it. In these circumstances it does not seem necessary to quote his opinion fully.

encouraged in every possible way), and to assess sheep and goats at the very moderate rates of $\frac{2}{4}$ anna in villages which are paying grazing fees already, and of $\frac{1}{4}$ anna elsewhere. These proposals are very lenient, but they involve a rather considerable increase in the grazing fees demand, and remembering that *Kahcharai* revenue is not taken at all in some other remote tracts, such as Gurez and Padar, I am not in favour of taking more here. The demand should be fixed for 10 years, after which period, if all goes well, I am inclined to think that the rates might be raised; though it will be found somewhat difficult to obtain an accurate return of the numbers then existing.

Here I mention once more the practice in Lahul and Spiti. The local flocks there are exempt from grazing revenue, while sheep and goats in the rest of the Kulu sub-division pay $\frac{1}{4}$ anna per head ordinarily, or $\frac{1}{2}$ anna per head if grazed in Lahul by owners not belonging to that tract.

22. *Report, paragraph 64.*—It is for the Durbar to say whether cesses will continue to be realized by deduction from the revenue, or will be added to it in the ordinary way. In the latter case an equivalent reduction of the proposed demand will be necessary.

The matter does not, however, end here: if separate cesses are taken, it will not be desirable to establish a precedent for departing from the usual rule, that cesses are payable on the revenue of *jagir* and *masi* lands. With a few very unimportant exceptions the only holders of such grants in Ladakh are the monasteries and the Rajas of Stok and Matbo; and to require them to pay cesses, a demand hitherto unheard of in the country, would undoubtedly cause dissatisfaction, not to the jagirdars and mafidars alone, but also to the people at large. It is true that the cesses would be nominally paid by the land-holders, but the revenue assignees are usually also the *assamis* of the land assigned, and in any case the separation of the demand would actually result in a loss to them.

There is nothing to be gained, in my opinion, by imposing cesses separately, and remitting them in favour of jagirdars and mafidars, which in the alternative I should feel obliged to recommend.

23. The financial results of the proposals made above are summed up in the following table:—

Demand.	Land revenue and cesses.	Assessment on mills.	Grazing revenue.	TOTAL.
	Rs.	Rs.	Rs.	Rs.
Current	57,848	86	3,318	61,252
Proposed	55,963 ⁷⁸	120	4,576	60,659 ⁹³¹
			4,833	
			1,515	
Increase ... ..	.....⁷⁰	34	1,258	.....³²¹
Decrease	1,885	.....	.....	593

The net result of the proposals is therefore a net decrease of ⁵²96 per cent.; the result of the re-assessment so far as the State is concerned is therefore insignificant, though the changes in the internal distribution will be far from unimportant.

24. *Report, paragraph 69.*—I agree with the Settlement Officer in regard to the dates for instalments; inconvenient though they seem, the people certainly prefer that they should not be altered.

25. *Report, paragraph 72.*—In paragraph 72 the Settlement Officer recurs to the question of ownership. I take it to be settled that the State is proprietor of the land, and it only remains to decide what to do in regard to *malikana*; as I have said above *assami* right in Ladakh is more closely akin to ownership than it is in Kashmir, and as the *malikana* of 1 anna per rupee has been held in Kashmir to be included in the revenue, there seems no reason for refusing a similar concession here. The Settlement Officer proposes to extend it to the holders of *masis* as well, contrary to Kashmir practice; as the Ladakh

mafis are nearly all for administrative or religious purposes, it is probable that His Highness will approve of this suggestion, which I think is politically sound.

26. *Report, paragraph 74.*—I regret that the question of payment of revenue in kind had to be held back ; it will be reported on in a note appended to this Review, if received in time.*

27. *Report, paragraph 75.*—The Settlement Officer proposes 30 years as the term of Settlement. This is a radical departure from the previous custom in the State where Settlements of 10 or 15 years have been the rule, though they have often run on longer. I am inclined to think that 25 years may be fixed, on the understanding that it will probably be extended when the time comes. I see no reason to think that it will be necessary to re-settle Ladakh for a very long time to come, but it is easy to extend a comparatively short term, while a longer term once fixed cannot be shortened.

MISCELLANEOUS.

28. *Report, paragraph 65, &c.*—Proposals regarding the patwari staff (paragraph 65), lambardars (paragraph 67), and kardars (paragraph 68), have already been made on the Preliminary Report, and need not be repeated here. As regards kantungos (paragraph 66), 3 girdawars and an office kanungo are certainly needed if the work in this immense tahsil is to be properly supervised ; this means the addition of one girdawar to the present staff. The scale of pay and allowances proposed may be approved ; and steps will then be taken to obtain provision for the expenditure involved.

29. *Report, paragraphs 70—71.*—In regard to exemptions from *karbegar* the Settlement Officer adds to the proposals made in the Preliminary Report (paragraph 20 of my Review) the recommendation that all exemptions ordered by the Wazir shall be annually reported to the Revenue Minister. I see no objection to this, but the Annual Report should relate only to exemptions newly granted during the previous year.

A considerable improvement has been made in the revised *res* arrangements introduced this year, which are on trial. Though the State transport system referred to is not at present suitable for Ladakh, it may very possibly be practicable in Kargil ; I believe the Wazir is making enquiries on the subject.

I have not seen the papers regarding the proposed further *takavi* grant of Rs. 5,000 for purchase of transport *yaks* and ponies. The advances given last year have been most useful, and the further amount now proposed should certainly be sanctioned.

30. *Report, paragraph 2.*—The Settlement Officer's remarks regarding the boundary with Tibet are correct ; but no practical inconvenience arises from the fact that the boundary has not been accurately demarcated and surveyed, and the question whether this should now be done depends chiefly on political considerations. So far as the Revenue and Settlement Departments are concerned there is no need at present to take up the question, but it may be thought desirable to take action in order to avoid complications in the future.

The story I have heard about the acquisition of the village of Mansar, 8 days journey beyond the frontier of Tibet, is somewhat different from that recounted by the Settlement Officer ; but the method of acquisition is immaterial. If Mansar remains with the State the present arrangements in regard to the place must continue, as no State official can visit it. If there is no political objection to taking up the question of exchanging it for some village near the boundary, I suggest that such action be taken. Meanwhile the revenue payable will be Rs. 278-12-0 as before.

31. This is Chaudhri Khushi Muhammad's first Assessment Report ; from an officer of his ability and educational attainments I looked for a good Report and I have not been disappointed. The Report (though the arrange-

* Not received. W. S. T. 5th February 1909.

ment of subjects is rather defective), is clear and well written, and deals fully and carefully with all points of importance. For Chaudhri Khusbi Muhammad's other work as Settlement Officer I have nothing but praise; he has worked hard and well, and his high character has had its effect on the officers under him. He has carried on at the same time the work of Wazir and Kashmir Joint Commissioner, in which capacities he has earned golden opinions from those best qualified to judge. —

Sardar Thakar Singh has worked well and honestly throughout; and has made himself very useful in matters not really within the sphere of his work as Assistant Settlement Officer, such as distribution of *takavi*, and enquiries regarding *res* and *begar*. He has also compiled a record of local customs.

I believe Pandit Anant Ram, B.A., Settlement Tahsildar, to deserve the commendation bestowed on him by the Settlement Officer.

CAMP KUTALEE:

Dated 17th December 1908. }

W. S. TALBOT,
Settlement Commissioner,
Jammu and Kashmir State.

Appendix I to Settlement Commissioner's Review of Ladakh Assessment Report (paragraph 15).

Extract from the proceedings of a Committee which met at Srinagar on 24th October 1908. to discuss the question of Agricultural Indebtedness, etc.

* * * * *

(1). As regards rules regulating the transfer of cultivating right, the Committee think that there is no objection to leases for a term of years to any person whose object is merely the ordinary cultivation of the land on payment of rent; but that transfers which for practical purposes amount to a permanent alienation of the land under the name of a lease should be wholly prohibited.

(2). These objects can be obtained by making the simple rule that leases of cultivating right shall not be made for any term exceeding the unexpired portion of the term of Settlement current at the time, or 10 years, whichever is least, and that at the termination of the lease, the lessee shall not be entitled to compensation for improvements of any kind.

(3). The last provision would entirely exclude the class of persons who take land, not for ordinary cultivation, but for building bungalows, planting orchards and the like; it is therefore unnecessary to make any distinction between State subjects and outsiders, or between agriculturists and non-agriculturists. But it should of course be understood that it is not intended to deprive ordinary agricultural tenants of their right, under the Tenancy Law in force, to compensation for disturbance and for ordinary agricultural improvements.

(4). There is no need to interfere with pattas (transfers of cultivating right) already existing *before this date*, of which the number is not large. All holders of such pattas already executed should be required to apply, within 6 months of the issue of His Highness' orders on the proposals, for the legalisation of their leases. The period of three months previously provided is considered too short.

As regards penalty for breach of the rules the Committee consider that forfeiture of the land affected would be a sufficient punishment; and that it is not necessary to impose fines on either party in addition, as previously proposed in the draft rules.

* * * * *

STATEMENT No. 1.—*Melan Rakba.*

1	2	3	4	UNCULTIVATED.						CULTIVATED.									
				5	6	7	8	9	10	11	12	13	14	15	16	17	18		
Year.	Assessment Circle.	Details.	Total area.	UNCULTIVATED.						CULTIVATED.									
				Uncultivable.	Unappropriated waste.	Appropriated waste.	Bedzar and Safaid-zar.	Karsham.	Banjar jaidi.	Total.	Maying.	Barjing and Chas.	Barh Barjing.	Thajng and Sajak.	Barh Thajng.	Uhang.	Total.		
Sambat 1958	Total ...	7,931	5,707	12	734	...	...	...	...	...	746	127	802	34	388	23	104	1,478
Sambat 1964	Total ...	4,865	2,344	413	471	83	...	...	...	...	817	77	688	50	447	26	116	1,404
Difference between Sambats 1959 and 1964.	...	Decrease ...	3,266	3,363	...	263	...	...	...	...	...	...	50	114	...	...	...	...	74
	...	Increase ...	...	...	401	...	83	...	...	...	...	171	...	...	18	59	8	12	...
Sambat 1958	Total ...	64,940	48,403	370	4,975	65	...	...	...	...	5,426	913	6,196	32	2,488	3	1,499	11,111
Sambat 1964	Total ...	52,891	35,241	3,081	4,792	425	46	37	...	...	8,361	354	5,797	37	1,651	14	1,416	9,289
Difference between Sambats 1958 and 1964.	...	Decrease ...	12,049	13,162	...	183	...	...	...	...	...	...	559	389	...	817	...	83	1,7842
	...	Increase ...	...	...	2,711	...	360	46	21	...	...	2,853	...	...	5	...	11	...	...
Sambat 1958	Total ...	50,831	38,628	332	3,310	9	...	...	...	...	3,490	702	5,209	5	2,175	5	617	8,713
Sambat 1964	Total ...	25,979	14,205	1,282	2,790	825	5	104	...	...	4,516	328	4,226	1	1,995	2	708	7,258
Difference between Sambats 1958 and 1964.	...	Decrease ...	24,852	24,423	...	420	...	...	...	...	...	...	374	983	4	180	3	...	1,455
	...	Increase ...	...	...	1,080	...	316	5	65	...	...	1,028	...	...	...	...	...	89	...
Sambat 1958	Total ...	4,347	2,220	2	557	...	...	...	...	...	706	38	660	...	666	...	55	1,421
Sambat 1964	Total ...	5,458	3,017	464	948	4	3	38	...	...	1,477	12	221	1	668	2	62	964
Difference between Sambats 1958 and 1964.	...	Decrease ...	...	...	...	...	...	...	...	...	...	...	86	439	...	2	...	...	457
	...	Increase ...	...	...	462	...	4	3	...	...	...	771	...	...	1	...	2	7	...
Sambat 1958	Total ...	128,049	94,958	618	9,478	74	...	...	...	...	10,388	1,780	12,867	71	5,699	31	2,275	22,723
Sambat 1964	Total ...	68,993	54,507	5,270	9,001	787	54	179	...	...	15,291	771	10,932	69	4,759	44	2,300	18,895
Difference between Sambats 1958 and 1964.	...	Decrease ...	39,056	40,151	...	475	...	...	...	...	...	...	1,009	1,935	...	940	...	...	3,828
	...	Increase ...	...	...	4,854	...	713	54	...	...	...	4,823	...	...	16	...	13	25	...

STATEMENT No. 2.—Showing cropped area of 1964.

Assessment Circle.	Majing.	Barjing.	Thajing.	Chhas.	Sasik.	Ulthang.	Total.
First	77	680	371	9	76	116	1,329
Second	354	5,771	1,447	26	204	1,416	9,218
Third	328	4,213	1,737	18	258	706	7,255
Fourth	12	220	563	1	103	32	931
Total	771	10,884	4,118	49	641	2,300	18,763

STATEMENT No. 3.—Jinjar.

(CROP RETURNS).

2	3	RABI CROPS HARVESTED.													RABI AND KHARIF						34															
		4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22		23	24	25	26	27	28	29	30	31	32	33				
Classes of soils.	Wheat.	Gram.	Barley.	Karah.	Masur.	Bajra.	Sorghum.	Vegetables.	Fodder.	Fruits.	KHWARIF CROPS HARVESTED.						Total crop harvested.	Area of crops failed.	Area of taradadi and khali.	Total cultivation in rabi.	Trumba.	China.	Kangul.	Vegetables.	Sorghum.	Total crops harvested.	Area of crops failed.	Area of taradadi and khali.	Total cultivation in kharif.	Total crops harvested.	Crops failed.	Total area sown.	Deduct area that has borne two crops.	Balance correct area cropped.	Area of taradadi and khali.	Total cultivation.
											18	19	20	21	22	23																				
.....	286	608	69	...	220	1	...	33	4	112	13	1,330	...	148	1,478	240	5	22	13	1	261	...	1,197	1,478	1,611	...	1,611	243	1,368	110	1,478	1,478				
Majing ...	25	38	3	2	2	1	...	2	1	73	1	3	77	18	...	1	1	...	20	1	208	...	58	77	93	2	95	21	74	3	77			
Barjng ...	161	341	28	44	21	16	2	9	2	...	4	644	4	32	680	176	10	18	4	...	208	12	480	16	480	680	852	206	662	18	680	680				
Bagh Barjng	50	...	50	50	50	50	50	...	50	50			
Thajng ...	127	197	9	20	9	22	...	12	...	...	1	296	5	70	371	39	5	...	1	...	45	2	324	7	324	371	341	19	329	42	371	371		
Bagh Thajng	25	...	28	28	26	26	26	...	26	26			
Chas ...	...	...	...	...	...	...	...	...	...	...	7	7	...	1	8	...	...	...	1	...	1	...	...	...	7	8	8	...	8	...	...	8
Sasik ...	6	...	...	4	...	3	...	...	...	...	13	13	1	62	76	11	...	...	...	11	...	...	...	65	76	24	25	25	...	25	51	76
Ulthang	116	116	116	116	116	116	116	116	...	116	...	116	116			
Total ...	339	476	40	70	32	42	2	23	10	116	75	1,325	11	168	1,404	244	15	19	7	...	285	15	1,104	1,404	1,510	28	1,536	246	1,290	114	1,404	1,404				
Decrease ...	...	132	29	...	188	...	...	10	...	...	...	105	...	...	74	...	...	3	6	1	...	...	...	93	74	101	75	78	...	78	...	75
Increase ...	73	...	...	70	...	41	2	...	4	62	...	...	11	30	...	...	4	10	...	4	...	...	...	15	...	...	26	...	...	...	4	...
.....	2,621	2,757	1,663	133	870	125	391	25	1,634	46	10,269	21	621	11,114	63	7	3	28	...	99	...	11,012	11,111	10,368	21	10,389	51	10,338	773	11,111	11,111					

Majing ...	105	154	54	6	6	1	4	7	...	...	389	2	13	354	1	...	...	...	858	354	340	2	342	...	842	12	354
Barjing ...	1,763	2,104	939	103	186	63	41	229	8	...	5,436	52	263	5,771	110	...	34	...	5,661	5,771	5,548	52	5,528	78	5,522	249	6,771	
Bagh Barjing ...	...	...	...	...	...	...	...	...	...	37	37	...	...	...	...	...	...	...	37	37	37	...	37	...	37	...	37
Thajing ...	473	292	244	42	70	21	7	65	...	1	1,215	13	219	1,447	32	...	6	...	1,415	1,447	1,247	13	1,260	14	1,240	201	1,447	
Bagh Thajing ...	...	...	...	...	...	...	...	...	...	14	14	...	...	...	...	...	...	...	14	14	14	...	14	...	14	...	14
Chas ...	...	...	...	...	...	...	...	...	24	...	24	...	2	26	...	...	...	...	26	26	24	...	24	...	24	2	26
Sasik ...	9	5	9	3	...	2	...	2	...	...	30	1	173	204	9	...	...	...	195	204	39	1	40	..	40	164	204
Ulthang ...	...	...	...	...	...	...	...	...	...	1,412	1,412	...	4	1,416	...	...	...	...	1,416	1,416	1,412	...	1,412	...	1,412	4	1,416
Total	2,350	2,555	1,246	154	264	87	52	303	32	1,413	6,607	68	694	9,269	152	...	40	...	9,117	9,269	8,659	68	8,727	90	8,637	632	9,269	
Decrease	271	202	417	...	606	38	...	88	...	221	1,762	...	127	1,842	...	...	3	...	1,895	1,842	1,709	...	1,662	...	1,701	141	1,842
Increase	...	...	...	21	...	...	50	...	7	...	...	47	...	...	36	...	14	...	...	...	...	47	...	...	39	...	...
.....	1,034	4,134	1,100	38	682	47	...	207	17	666	7,954	...	759	8,713	54	...	14	...	8,942	8,713	8,025	...	8,026	14	8,011	702	8,713	
Majing ...	31	246	33	1	6	...	...	5	...	...	322	...	6	326	...	...	1	...	327	328	323	...	323	1	322	6	328
Barjing ...	859	1,942	671	49	204	47	9	119	5	1	3,906	8	804	4,213	48	...	14	...	4,165	4,213	3,954	3	3,957	19	3,936	275	4,213	
Bagh Barjing	1	1	1	1	1	1
Thajing ...	188	754	203	23	94	24	6	60	1	2	1,355	5	377	1,737	23	...	3	...	1,714	1,737	1,378	5	1,283	5	1,378	359	1,737	
Bagh Thajing	2	2	2	2	2	...	2	...	2	...	2	2
Chas ...	...	...	...	...	...	...	...	...	9	...	9	...	4	13	...	...	...	...	13	13	9	...	9	...	9	4	13
Sasik ...	9	29	13	1	3	...	...	6	...	...	61	...	197	258	...	...	...	...	258	258	61	...	61	...	61	197	258
Ulthang ..	...	...	...	...	...	...	...	...	...	698	698	...	8	706	...	...	...	...	706	706	698	...	698	...	698	8	706
Total	1,087	2,971	920	74	307	71	15	190	15	701	6,853	8	897	7,258	72	...	18	...	7,166	7,258	6,425	8	6,433	25	6,408	850	7,258	
Decrease	...	1,163	189	...	385	...	...	17	2	...	1,601	...	...	1,455	...	...	...	...	1,456	1,455	1,600	...	1,592	...	1,603	...	1,455
Increase	53	...	...	36	...	24	15	...	...	35	...	8	138	...	...	6	...	4	...	...	...	8	...	11	...	148	...
.....	4	768	11	...	61	2	...	16	3	43	908	...	513	1,421	7	...	...	...	1,414	1,421	915	...	915	...	915	506	1,421

Barjing 1953

Barjing 1953

Barjing 1953

Barjing 1953

STATEMENT No. 3—concluded.

2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	
																																	RABI CROPS HARVESTED.
Classes of soils.		Wheat.	Cicum.	Barley.	Karas.	Matar.	Masur.	Bajla.	Sarshat.	Vegetables.	Fodder.	Fruits.	Total crop harvested.	Area of crops failed.	Area of taradadi and khali.	Total cultivation in rabi.	Tramba.	China.	Kangni.	Vegetables.	Sarshat.	Total crops harvested.	Area of crops failed.	Area of taradadi and khali.	Total cultivation in kharif.	Total crops harvested.	Crops failed.	Total area sown.	Deduct area that has borne two crops.	Balance correct area crop.	Area of Taradadi and khali.	Total cultivation	
	Majing ...	...	...	...	...	...	...	...	...	...	...	...	181	3	36	220	...	...	...	...	...	3	...	217	12	184	3	167	1	186	34	229
	Barjing ...	1	159	8	...	9	...	...	2	2	...	...	1	...	...	1	...	...	...	...	...	...	...	1	220	1	...	...	186	...	...
	Bagh Barjing ...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...	...	1	1	1	...	1	1	...	...	1
	Thajing ...	8	344	30	...	25	...	...	7	2	...	...	417	15	181	563	1	...	...	...	1	...	...	502	2	418	15	433	...	483	130	563
	Bagh Thajing ...	...	...	...	...	...	...	...	...	...	2	...	2	...	...	2	...	...	...	...	...	...	...	3	2	2	...	2	2	...	2	2
	Chas	1	1	1	1	1	1
	Sasik ...	...	...	...	...	...	...	...	...	...	...	...	45	...	58	103	...	...	...	...	...	...	...	103	103	45	...	45	45	58	103	103
	Ulhang	62	...	62	62	62	62	62	...	62	62	...	62	62	62
	Total	9	555	38	...	34	1	...	9	4	62	3	716	19	229	864	4	...	...	...	4	...	860	864	720	19	739	1	738	226	864	
	Decrease	...	212	...	...	27	1	...	7	...	...	...	192	...	284	497	3	...	...	...	3	...	454	457	195	...	176	...	177	280	457	
	Increase	5	...	27	...	...	...	...	...	1	19	3	...	19	...	...	1	...	...	...	...	...	...	...	...	19	...	...	...	...	...	...
	.....	3,925	8,267	2,852	171	1,843	175	2	647	53	2,455	71	20,461	21	2,241	22,723	364	15	25	53	1	458	...	22,265	22,723	20,919	21	20,940	308	20,638	2,091	22,723
	Majing ...	161	446	90	0	16	2	4	14	...	...	...	742	4	25	771	19	...	1	3	...	22	1	749	771	764	5	769	22	747	24	771
	Barjing ...	...	...	1,646	196	420	126	52	359	17	1	...	10,167	62	655	10,864	274	25	18	52	...	369	12	10,508	10,884	10,536	74	10,610	302	10,808	576	10,864
	Bagh Barjing ...	...	...	...	...	...	...	...	...	...	...	88	88	...	1	89	...	...	...	...	...	...	...	89	89	88	...	88	...	...	1	89
	Thajing ...	...	...	486	85	198	68	13	144	3	3	...	8,263	38	797	4,118	79	12	...	10	...	101	2	4,015	4,118	3,384	40	3,424	38	3,366	732	4,118
	Bagh Thajing ...	...	...	...	...	...	...	...	...	1	...	43	44	...	...	44	...	...	...	...	...	...	...	44	44	44	...	44	...	44	...	44
	Chas ...	...	...	...	...	...	...	...	...	40	...	...	40	...	6	48	...	...	...	1	...	1	...	47	46	41	...	41	...	41	7	46
	Sasik ...	24	79	22	8	3	5	...	8	...	...	...	149	2	490	641	20	...	...	...	20	...	621	641	169	2	171	...	171	470	641	
	Ulhang ...	...	...	...	...	...	...	...	...	...	2,288	...	2,288	...	12	2,300	...	...	...	...	...	...	...	2,300	2,300	2,288	...	2,288	...	2,288	12	2,300
	Total 1964	3,785	6,558	2,244	268	637	201	69	525	61	2,202	131	16,801	106	1,988	13,695	392	37	19	65	...	518	15	18,367	16,695	17,314	121	17,435	362	17,073	1,622	18,695	
	Decrease	140	1,709	608	...	1,208	...	...	123	...	163	...	3,660	...	253	3,628	...	...	0	...	...	...	...	3,995	3,628	3,605	...	3,505	...	3,559	269	3,828
	Increase	...	...	...	127	...	28	67	...	8	...	60	...	65	...	...	28	22	...	13	...	65	15	...	...	100	...	...	...	...	...	...

Ranabai 1964.

Sarabai 1964.

STATEMENT No. 4.—Showing cultivating occupancy of Tahsil Ladakh.

1	2	3	4	5	6			7	8	9	10	11	12	13	14	15	16	17	18
					AREA CULTIVATED BY TENANTS PAYING RENT.														
ASSESSMENT CIRCLE.	Detail.	Total cultivated area.	Area cultivated by assamsis.	Area cultivated by tenants.	Paying at revenue rates with or without malikana.	Paying other cash rents.	Paying in kind with or without malikana.	Total held by tenants paying rent.	Detail.	Zabti rents.	½ produce or more.	Less than ½	By fixed amount of produce.	Total area under rents in kind.	Total paying at revenue rates with or without malikana.	Total paying other cash rents.	Total cash rents paid on area entered in column No. 18.		
FIRST.	Holding	...	632	492	18	41	8	73	122	...	...	5	89	44	29	1	17	14	9
	Area	...	1,404	1,326	4	29	1	44	74	...	...	...	...	...	...	...	...	...	...
SECOND.	Holding	...	3,981	2,379	157	140	332	973	1,445	...	...	41	656	697	145	169	713	2	6
	Area	...	9,314	8,257	46	145	169	697	1,011	...	...	...	...	...	...	...	...	...	...
THIRD.	Holding	...	3,051	2,032	63	275	180	502	957	...	...	11	378	388	219	158	455	4	0
	Area	...	7,212	6,420	26	219	158	389	766	...	...	...	...	...	...	...	...	...	...
FOURTH.	Holding	...	489	430	5	22	5	37	64	...	...	3	25	27	37	4	7	4	0
	Area	...	965	896	1	37	4	27	68	...	...	...	...	...	...	...	...	...	...
TOTAL	Holding	...	7,458	4,640	242	472	524	1,587	2,576	...	...	59	1,098	1,167	430	338	1,188	9	3
	Area	...	18,895	16,899	77	430	332	1,157	1,919	...	...	...	...	...	...	...	...	...	...

NOTE.—Some of the holdings are situated partly in one circle and partly in the other. Hence average size per holding can not be correctly shown for each circle.

APPENDIX A.

Showing the classification of Villages and Muhallas of Ladakh Tehsil.

Number of Had Bast.	Name of village.	Name of Muhallas.	CLASSES.			
			I.	II.	III.	IV.
1	Beghdung	1. Beghdung Proper	1st	...	...	...
		2. Shupa Khur ... ..	...	...	...	4th
		3. Nhal Nakohan ... ..	...	...	"	"
		4. Chan Ling ... ..	...	...	...	"
		5. Chir Thanchan ... ..	...	...	...	"
		6. Lagob ... ..	...	...	...	"
		7. Nakpo Thang ... ..	...	...	3rd	...
2	Waris Fistan	1. Waris Proper ... ..	...	...	"	...
		2. Dunrpola ... ..	...	...	"	...
		3. Sani Dho ... ..	...	...	"	...
		4. Fistan Goman ... ..	...	...	"	...
		5. Bechming ... ..	...	...	...	4th
		6. Fistan Yughman... ..	...	...	...	"
3	Udmaru	1. Udmaru Proper	1st	...	...	...
		2. Shusha Khar ... ..	...	2nd	...	...
		3. Bruk ... ..	...	...	...	4th
4	Largep	1. Goman ... ..	...	...	3rd	...
		2. Yughman ... ..	...	...	"	...
		3. Pach Thang ... ..	...	...	"	...
		4. Rruk ... ..	...	...	...	4th
5	Skuru	1. Skuru Proper ... ..	...	...	3rd	...
		2. Rakhuru ... ..	...	...	...	4th
6	Tarche ... ..	.....	...	...	3rd	...
7	Hundri ... ..	.....	...	2nd	...	...
8	Kanfok ... ..	.....	...	"	...	...
9	Partab Pura ... ..	.....	...	...	3rd	...
10	Hundar	1. Hundar Proper	1st	...	...	...
		2. Unlee ... ..	"	...	...	...
		3. Awakshah ... ..	"	...	...	...
		4. Mitti ... ..	"	...	...	...
11	Hundar Dhok	1. Goman ... ..	...	...	3rd	...
		2. Yughman... ..	...	...	...	4th
		3. Wachan ... ..	...	...	...	"
		4. Sarning ... ..	...	...	...	"
12	Diakit ... ..	.....	1st	...	...	...
13	Chimshan Charasa	1. Chimshan ... ..	...	2nd	...	...
		2. Charasa ... ..	...	"	...	...
		3. Alkham ... ..	...	"	...	...
		4. Barma ... ..	...	"	...	...

APPENDIX A.—continued.

Number of Had Bast.	Name of village.	Name of Muhallas.	CLASSES.			
			I.	II.	III.	IV.
14	Kubed	1. Kubed Proper ... ..	...	2nd	...	...
		2. Taksha ... ..	...	"	"	...
		3. Ai ... ..	...	"	...	...
		4. Arnu Yughman ... ..	...	"	...	...
		5. Arnu Goman ... ..	...	"	...	...
15	Khemis	1. Khemi Proper ... ..	...	"	...	...
		2. Chang Lung ... ..	...	"	...	...
		3. Hinachi ... ..	...	"	...	...
		4. Tanstit ... ..	...	"	...	...
		5. Zungsa ... ..	...	"	...	...
		6. Newstat ... ..	...	"	...	...
		7. Washi ... ..	...	...	...	4th
		8. Gumbo ... ..	...	...	...	"
		9. Jingmoche ... ..	...	...	...	"
16	Panamik	1. Panamik Yugman ... ..	...	2nd	...	...
		2. Phukpoche ... ..	...	"	...	...
		3. Panamik Goman ... ..	...	"	...	...
		4. Tritsha ... ..	...	"	...	...
		5. Kuri ... ..	...	"	...	...
		6. Murghi ... ..	...	"	...	...
17	Tigar	1. Tigar Proper ... ..	...	"	...	...
		2. Pinchimik ... ..	...	"	...	...
18	Samoor ... ..	.....	...	"	...	...
19	Lagjun	1. Lagjun Proper ... ..	...	...	3rd	...
		2. Tirat ... ..	...	2nd	...	...
		3. Chhati ... ..	...	"	...	...
20	Khalsar	1. Khalsar Proper ... ..	...	"	...	...
		2. Bruk Yughman ... ..	...	...	...	4th
		3. Bruk Goman ... ..	...	...	...	"
21	Khardung	1. Khardung Proper ... ..	...	...	3rd	...
		2. Maghmar ... ..	...	...	"	...
		3. Pharka ... ..	...	...	"	...
		4. Khari Goman ... ..	...	...	"	...
		5. " Yughman ... ..	...	...	"	...
		6. Zamolte ... ..	...	...	"	...
		7. Bruk Yughman ... ..	...	...	...	4th
		8. Bruk Goman ... ..	...	...	...	"
		9. Chhulipa ... ..	...	2nd	...	...
		10. Rung Do ... ..	...	"	...	...
22	Digar	1. Digar Proper ... ..	...	...	3rd	...
		2. Thang Dimo ... ..	...	...	...	4th
		3. Kanka ... ..	...	...	...	"

APPENDIX A—continued.

Number of Head Dast.	Name of village.	Name of Muhallas.	CLASSES.			
			I.	II.	III.	IV.
23	Khima Khimru	1. Khima ... ..	...	...	...	4th
		2. Khimru ... ..	...	...	3rd	...
		3. Agyam ... ..	...	...	"	...
24	Tanyar	1. Rong ... ..	...	...	"	...
		2. Stung ... ..	...	...	"	...
		3. Skok ... ..	...	...	"	...
		4. Umri ... ..	...	...	...	4th
25	Dergub	1. Dergub Proper with its Muhallas ...	...	...	3rd	...
26	Shachukul	Sachukul Proper with Muhallas ...	...	...	"	...
27	Tanktse	Tanktse Proper with Muhallas ...	...	...	"	...
28	Mau Pangam	1. Khaktot ... ..	...	...	"	...
		2. Man ... ..	...	...	"	...
		3. Mirak ... ..	...	...	"	...
		4. Pangmik ... ..	...	...	"	...
		5. Lakolung ... ..	...	...	...	4th
		6. Tablung ... ..	...	...	...	"
		7. Yurang ... ..	...	...	...	"
		8. Fobrang ... ..	...	...	...	"
29	Kargum Chuchal	1. ....	...	...	3rd	...
30	Kungiam	Kungiam Proper with Muhallas ...	...	...	"	...
31	Luktse ... ..	.....	...	...	"	...
32	Tukla	1. Tukla Proper ... ..	...	...	"	...
		2. Thasru ... ..	...	...	...	4th
33	Phuktse	Phuktse Proper including all other areas	...	...	3rd	...
34	Shara	1. Shara Proper ... ..	...	...	"	...
		2. Nugal ... ..	...	...	"	...
		3. Phuh ... ..	...	...	...	4th
35	Sharangosh ... ..	.....	...	...	3rd	...
36	Igu	1. Igu Proper including Nagta ...	...	2nd	...	...
		2. Enche and Zagur Nagla ... ..	...	...	3rd	...
		3. Encheh ... ..	...	...	"	...
		4. Zagur ... ..	...	...	"	...
		5. Kulam ... ..	...	...	"	...
		6. Phuh ... ..	...	...	"	...
37	Lankor ... ..	.....	...	...	3rd	...
38	Sakti	1. Sakti Proper ... ..	...	2nd	...	...
		2. Tagar and Taghnak ... ..	...	...	3rd	...
39	Chimre ... ..	.....	...	2nd	...	...
40	Kharu ... ..	.....	...	"	...	...
41	Nang ... ..	.....	...	...	3rd	...
42	Ranbir Pura ... ..	.....	...	2nd	...	...

APPENDIX A—continued.

Number of Had Gsst.	Name of village.	Name of Muhallas	CLASSES.			
			I.	II.	III.	IV.
43	Thikse	1. Thikse Proper ... ..	...	2nd	...	...
		2. Arzu ... ..	...	...	3rd	...
		3. Tagmo ... ..	...	...	"	...
44	She ... ..	.....	...	2nd	...	...
45	Sabu	1. Peu Yughman .. ..	...	...	3rd	...
		2. Peu Goman .. ..	...	...	"	...
		3. Gongzur ... ..	...	...	"	...
		4. Zung ... ..	...	...	"	...
		5. Tara Gung ... ..	...	2nd	...	...
		6. Iyu ... ..	...	"	...	...
46	Chughlam Sar ... ..	.....	...	"	...	...
47	Leh	1. Leh Proper ... ..	...	"	...	...
		2. Kara ... ..	...	"	...	...
		3. Gunpa ... ..	...	"	...	...
		4. Gemcha .. ..	...	...	3rd	...
		5. Gangles ... ..	...	...	"	...
48	Fituk	1. Pituk Proper ... ..	...	2nd	...	...
		2. Phorka ... ..	...	"	...	...
49	Fiang	1. Fiang Proper ... ..	...	"	...	...
		2. Thang Nak ... ..	...	"	...	...
		3. Man Kang ... ..	...	"	...	...
		4. Marubuk ... ..	...	...	...	4th
		5. Phubings ... ..	...	...	...	"
50	Fe ... ..	.....	...	2nd	...	...
51	Taru ... ..	.....	...	"	...	...
52	Umla ... ..	.....	...	...	3rd	...
53	Nimu	1. Nimu Proper ... ..	...	2nd	...	...
		2. Muhallas ... ..	...	...	3rd	...
54	Bazgo ... ..	.....	...	2nd	...	...
55	Ne ... ..	.....	...	...	3rd	...
56	Lakir	1. Area above the Gunpa ... ..	...	...	"	...
		2. Area below the Gunpa ... ..	...	2nd	...	...
57	Saspul	1. Saspul Proper	1st	...	...	...
		2. Sabu Karse ... ..	"	...	...	...
		3. Mangs Karik ... ..	...	2nd	...	...
		4. Halinka ... ..	...	"	...	...
		5. Ali Tukpo ... ..	...	"	...	...
58	Saspoche ... ..	.....	...	...	3rd	...
59	Hemi Shupa... ..	1. Hemi Shopa Proper including Muhallas.	...	...	"	...
		2. Ule Bruk ... ..	...	...	...	4th
60	Nurla ... ..	.....	1st	...	...	...

APPENDIX A—continued.

Number of Had Bast.	Name of village.	Name of Muhallas.	CLASSES.			
			I.	II.	III.	IV.
61	Timasgam	1. Timasgam Proper ... ..	...	2nd	...	...
		2. Warlak ... ..	...	"	...	...
		3. Ang ... ..	...	...	3rd	...
62	Teah	1. Teah Proper ... ..	...	2nd	...	...
		2. Bruk area ... ..	...	...	...	4th
63	Kha'se	1. Khalse Proper... ..	1st	...	...	...
		2. Aisu Bruk ... ..	"	...	...	...
		3. Narmangima ... ..	...	2nd	...	...
		4. Narman Barma ... ..	...	"	...	...
		5. Narman do. ... ..	...	"	...	...
		6. Harise Barma ... ..	...	"	...	...
		7. Langrun ... ..	...	"	...	...
		8. Bang ... ..	...	"	...	...
		9. Balukhar ... ..	...	...	3rd	...
		10. Narmuchuka bruk ... ..	...	...	"	...
		11. Harise Goman ... ..	...	...	"	...
		12. Skambar Goma ... ..	...	...	"	...
		13. Skambar Yugma ... ..	...	...	"	...
64	Skinding	1. Skinding Proper ... ..	...	2nd	...	...
		2. Stang ... ..	...	...	3rd	...
		2. Lalung Dus ... ..	...	...	"	...
		4. Nirman ... ..	...	...	...	4th
		5. Chhuka ... ..	...	...	...	"
		6. Shigran ... ..	...	...	...	"
65	Dumkhar	1. Dunekhar Proper	1st	...	...	"
		2. Thango ... ..	"	...	...	...
		3. Bibi Sana ... ..	"	...	...	...
		4. Thang jok ... ..	"	...	...	...
		5. Yargo ... ..	...	2nd	...	...
		6. Wal ... ..	...	"	...	...
		7. Barman ... ..	...	"	...	...
		8. Thangras ... ..	...	...	3rd	...
		9. Goman ... ..	...	...	"	...
		10. Nirmu ... ..	...	...	"	...
		11. Bruk Sanche ... ..	...	...	"	...
		12. Khargok ... ..	...	...	...	4th
		13. Chinchaka ... ..	...	...	...	"
		14. Proche ... ..	...	...	...	"
		15. Koram ... ..	...	...	...	"

APPENDIX A.—continued.

Number of Bad Bast.	Name of village.	Name of Muhallas.	CLASSES.			
			I.	II.	III.	IV.
66	Karbuchan	1. Karbuohan Proper	1st	...	...	...
		2. Sanchedo ... ..	"	...	...	...
		3. Inamdo ... ..	"	...	...	...
		4. Mik Than ... ..	"	...	...	...
		5. Alohina Thang ... ..	"	...	...	...
		6. Khache " ... ..	"	...	...	...
		7. Warchudo ... ..	"	...	...	...
		8. Turian ... ..	...	2nd	...	...
		9. Shaskam ... ..	...	"	...	...
		10. Khangrol ... ..	...	"	...	...
		11. Langbuche ... ..	...	"	...	...
		12. Pulchar ... ..	...	"	...	...
		13. Warchu ... ..	...	"	...	...
		14. Yughman Mus... ..	...	"	...	...
		15. Kashokho ... ..	...	"	...	...
		16. Long Turian ... ..	...	"	...	...
		17. Sando ... ..	...	"	...	...
		18. Phumsa... ..	...	"	...	...
		19. Sache Lunba ... ..	...	"	...	...
		20. Skambar Lunba ... ..	...	"	...	...
		21. Saring Malik ... ..	...	"	...	...
		22. Siksik ... ..	...	"	...	...
		23. Kumbar ... ..	...	"	...	...
		24. Pachak ... ..	...	"	...	...
		25. Bak Pawses ... ..	...	"	...	...
		26. Nein Skaldak ... ..	...	...	...	4th
		27. Khawarche ... ..	...	...	...	"
		28. Bruklo ... ..	...	...	...	"
		29. Kalba Rilcha ... ..	...	...	...	"
67	Hanu	1. Hanu do ... ..	...	2nd	...	...
		2. Kaungche ... ..	...	"	...	...
		3. Thambu ... ..	...	...	3rd	...
		4. Stakpa ... ..	...	...	"	...
		5. Lungdo... ..	...	...	"	...
		6. Kunchat ... ..	...	...	"	...
		7. Tangbuche ... ..	...	...	"	...
		8. Hanu Yughma ... ..	...	...	"	...
		9. " Goman ... ..	...	...	"	...
		10. Poral ... ..	...	...	"	...
		11. Kaskas ... ..	...	...	"	...

APPENDIX A.—continued.

Number of Had Basi.	Name of village.	Name of Muhallas.	CLASSES.					
			I.	II.	III.	IV.		
68	Hanu—concid	12. Sarmabostan ... ..	...	...	...	4th
		13. Mahtap ... ..	...	...	...	"
		14. Skambo Lamba ... ..	...	...	...	"
		15. Spangkhang ... ..	...	...	...	"
		16. Pheou gang ... ..	...	...	...	"
		17. Horamchu ... ..	...	...	...	"
		18. Thangros ... ..	...	...	...	"
		19. Pharamchu ... ..	...	...	...	"
		20. Photo Lamba ... ..	...	...	...	"
		21. Hambar ... ..	...	...	...	"
		22. Stakpa Lungpa ... ..	...	...	...	"
		68	Dah	1. Doh Proper	1st
				2. Lastiangs	"
				3. Phindur	"
				4. Yogdos	"
				5. Bima	"
				6. Sautit	"
				7. Baldes... ..	"
				8. Doudari	2nd
				9. Chomarche	"
				10. Shanglu	3rd	...
				11. Yonu Dung	"	...
12. Kharu ... ..	...			...	"	...
13. Chubar ... ..	...			...	"	...
14. Rungauya ... ..	...			...	"	...
68	Ledo	1. Ledo Proper	1st	...	...	...
		2. Awanche ... ..	...	...	3rd	...
		3. Pachari... ..	...	...	"	...
		4. Barlos ... ..	...	...	"	...
		5. Taso ... ..	...	...	"	4th
89	Taghna Chak	1. Taghna Chak Proper	1st	...	...	...
		2. Lumba... ..	"	...	...	...
		3. Hemar ... ..	...	2nd	...	...
		4. Rong ... ..	...	"	...	...
		5. Urbins ... ..	...	...	3rd	...
		6. Sundo ... ..	...	...	"	...
		7. Harise ... ..	...	...	"	...
		8. Omlas ... ..	...	...	"	...
		9. Parchukma ... ..	...	...	"	...
		10. Labhu ... ..	...	...	...	4th
		11. Champa khutu ... ..	...	...	...	"
		12. Kaldam ... ..	...	...	...	"
		13. Shukshuk ... ..	...	...	...	"

APPENDIX A.—continued.

Number of Head Bast.	Name of village.	Name of Muhallas.	CLASSIFICATION.			
			I.	II.	III.	IV.
71	Kanjian	1. Shulacha ... ..	...	...	3rd	...
		2. Yulsa ... ..	...	...	"	...
		3. Phorka ... ..	...	...	"	...
		4. Zam ... ..	...	...	"	...
		5. Umpulton ... ..	...	...	...	4th
		6. Lachucha ... ..	...	...	...	"
		7. Khulsa ... ..	...	...	...	"
		8. Sumina Lung ... ..	...	...	...	"
		9. Tashi Kilba ... ..	...	...	...	"
		10. Katak Show ... ..	...	...	...	"
		11. Dumbur ... ..	...	...	...	"
72	Lingshit	1. Lingshit Proper including bruk areas	...	...	3rd	...
		2. Skampatta Yughma ... ..	...	...	"	...
		3. Kartse ... ..	...	...	"	...
		4. Debing ... ..	...	...	"	...
		5. Umans ... ..	...	...	"	...
73	Yulching	1. Yulching Proper ... ..	...	...	"	...
		2. Nirak ... ..	...	...	"	...
		3. Skampatta Goman ... ..	...	...	...	4th
74	Phatoksar	1. Phatoksar Proper with Bruks	...	...	3rd	...
		2. Shingdung ... ..	...	...	"	...
		3. Pharka... ..	...	...	"	...
		4. Askota ... ..	...	...	"	...
		5. Machu ... ..	...	...	"	...
75	Wanla	1. Wanla Proper ... ..	...	2nd	...	...
		2. Tirchit ... ..	...	"	...	...
		3. Urza ... ..	...	"	...	...
		4. Akungeha ... ..	...	...	3rd	...
		5. Urcha ... ..	...	...	"	...
		6. Phongéla ... ..	...	...	"	...
		7. Hanu Patta ... ..	...	...	"	...
		8. Sumdo... ..	...	...	"	...
		9. Hinju Yughman ... ..	...	...	...	4th
		10. " Goman ... ..	...	...	...	"
		11. " Anche ... ..	...	...	...	"
		12. Amut ... ..	...	...	...	"
76	Lama Uru	1. Lama Uru Proper ... ..	...	2nd	...	...
		2. Jankhar ... ..	...	"	...	...
		3. Giapak... ..	...	"	...	...
		4. Aticha ... ..	...	"	...	...
		5. Larcha ... ..	...	"	...	...
		6. Bruk nuk ... ..	...	"	...	...

APPENDIX A.—continued.

Number of Had Bast.	Name of village.	Name of Muhallas.	CLASSES.					
			I.	II.	III.	IV.		
	Lama Uru—consolid...	7. Sunchan ... ..	...	...	3rd	...
		8. Agzema ... ..	...	...	"	...
		9. Laluk ... ..	...	...	"	...
		10. Kalkuche ... ..	...	...	"	...
		11. Shing Lung ... ..	...	...	"	...
		12. Paturcha ... ..	...	...	"	...
		13. Supking Chan... ..	...	...	"	...
		14. Pamas ... ..	...	...	...	4th
		15. Chagacha ... ..	...	...	...	"
		97	Tar Hipli	1. Tar	2nd
				2. „ Yughma	"
				3. Gojing	"
				4. Hipti Yughma...	"
				5. „ Goman	3rd	...
				6. Nihalu Chang...	4th
7. Harling ... ..	...			...	...	"
8. Tharmo ... ..	...			...	...	"
98	Gera Mangu	1. Gera ... ..	...	2nd	...	...
		2. Mangu ... ..	...	...	3rd	...
		3. Rang Yugman... ..	...	...	"	...
		4. „ Goman ... ..	...	...	"	...
		5. Mache „ ... ..	...	...	"	...
		6. Khanse ... ..	...	...	"	...
		7. Pharka ... ..	...	...	"	...
		8. Sopita ... ..	...	...	"	...
		9. Zani ... ..	...	...	"	...
		10. Duk ... ..	...	...	...	4th
		11. Sigar ... ..	...	...	...	"
		12. Manlung ... ..	...	...	...	"
99	Alchi	1. Alchi Proper ... ..	...	2nd	...	...
		2. Lardu ... ..	...	"	...	...
		3. Chulangae ... ..	...	...	3rd	...
		4. Umling... ..	...	...	"	...
		5. Bath Duks ... ..	...	...	...	4th
80	Chilling Sumda	1. Chilling ... ..	...	2nd	...	...
		2. Uzans ... ..	...	...	3rd	...
		3. Samda Chhun ... ..	...	...	"	...
		4. Samda Chhinmo ... ..	...	...	"	...
		5. Lungu ... ..	...	...	"	...
		6. Chilling Duk... ..	...	...	"	...
		7. Achirik ... ..	...	...	...	4th
		8. Samda Chhun Duk ... ..	...	...	...	"
		9. Samda Chhinmo Duk ... ..	...	...	...	"

APPENDIX A.—continued.

Number of Had East.	Name of village.	Name of Muhallas.	CLASSES.			
			I.	II.	III	IV.
81	Rumbak	1. Rumbak Proper ... ..	...	...	3rd	...
		2. Uruche ... ..	...	...	"	...
		3. Shingo ... ..	...	...	"	...
		4. Kaya ... ..	...	...	"	...
		5. Sanktse ... ..	...	...	"	...
		6. Runchung ... ..	...	...	"	...
		7. Ying Chum ... ..	...	...	"	...
82	Skin Markha	1. Skiu Proper ... ..	...	...	"	...
		2. Chalak ... ..	...	...	"	...
		3. Thinle Pa ... ..	...	...	"	...
		4. Tutin Yughma ... ..	...	...	"	...
		5. „ Goma ... ..	...	...	"	...
		6. Taga Kium ... ..	...	...	"	...
		7. Markha... ..	...	...	"	...
		8. Hemlung ... ..	...	...	"	...
		9. Dultaklung ... ..	...	...	"	...
		10. Hankar ... ..	...	...	"	...
		11. Thachang ... ..	...	...	"	...
		12. Kamchar ... ..	...	...	"	...
83	Matho	1. Matho Proper ... ..	...	2nd	...	...
		2. Tuchik ... ..	...	...	3rd	...
		3. Miruche ... ..	...	...	"	...
		4. Karun ... ..	...	...	"	...
84	Stok ... ..	.....	...	2nd	...	...
85	Chhachot Yugman ... ..	.....	...	...	3rd	...
86	„ Shamma ... ..	.....	...	...	"	...
87	Chhachot Goman	1. Chhachot Goman Proper ... ..	...	...	"	...
		2. Rampur ... ..	...	...	"	...
88	Stagna ... ..	.....	...	...	"	...
89	Changa ... ..	.....	...	2nd	...	...
90	Hemi... ..	.....	...	...	3rd	...
91	Shang ... ..	.....	...	...	"	...
92	Marchaling ... ..	.....	...	2nd	...	...
93	Upshe ... ..	.....	...	...	"	...
94	Miru ... ..	.....	...	...	3rd	...
95	Giah ... ..	.....	...	...	"	...
96	Kharnak ... ..	.....	...	...	...	4th
97	Tirchat ... ..	.....	...	...	3rd	...

APPENDIX A.—concluded.

Number of Dead Baat.	Name of village.	Name of Muballas.	CLASSES.			
			I.	II.	III.	IV.
98	Hamyan	1. Hamyan Proper ... — ...	...	...	3rd	...
		2. Pharka ... ..	...	...	"	...
		3. Rabkhah ... ..	...	...	"	...
		4. Khatpa ... ..	...	...	"	...
		5. Argah ... ..	...	...	"	...
		6. Rakur Yugman ... ..	...	...	...	4th
		7. „ Goman ... ..	...	...	...	"
		8. Saling ... ..	...	...	...	"
		9. Gousa ... ..	...	...	...	"
		10. Zaltak ... ..	...	...	...	"
		11. Zaglay ... ..	...	...	...	"
		12. Ranuntar ... ..	...	...	...	"
		13. Numa Yugman ... ..	...	...	...	"
		14. „ Goman ... ..	...	...	...	"
99	Tiri	Tiri Proper including Tiri do ...	...	...	3rd	...
100	Keri	Keri Proper including Muhallas ...	...	...	"	...
101	Kinmang	1. Kinmang Proper ... ..	...	...	"	...
		2. Muhalla Mandal ... ..	...	...	"	...
102	Chhuma Thang	1. Chhuma Thang ... ..	...	...	"	...
		2. Maiya ... ..	...	...	"	...
103	Samad Rokchan	Not measured assessed on Kahcharai only.	...	...	...	...
104	Numan	1. Numan Proper... ..	...	...	3rd	...
		2. Neyar ... ..	...	...	"	...
105	Mattu, Rolman	1. Mattu ... ..	...	...	"	...
		2. Rulman ... ..	...	...	"	...
106	Hanle ... ..	.....	...	...	...	4th
107	Koyil	1. Koyil Proper ... ..	...	...	3rd	...
		2. Karle ... ..	...	...	...	4th
		3. Bimb Khar ... ..	...	...	...	"
		4. Tashigang ... ..	...	...	...	"
		5. Pharka ... ..	...	...	...	"
108	Demchuk	1. Demchuk ... ..	...	...	...	"
		2. Laganskial ... ..	...	...	...	"
109	Karzok ... ..	.....	...	...	...	"
110	Mansar	Not measured ; situated in Lhasa territory.	...	...	...	...

APPENDIX C.—Showing cash and

1	2	3	4	5	6	7	8	9	10	11	12	13
MAJING AND BARJING.							THAJING.					
Cash rent.			Grain rent.				Cash rent.			Grain rent.		
Area.	Rent.	Rent per acre.	Area.	Rent and its value.	Average per acre.	Area.	Rent.	Rent per acre.	Area.	Rent and its value.	Average per acre.	
K. M.	Rs. a. p.	Rs. a. p.	K. M.	Rs. a. p.	Rs. a. p.	K. M.	Rs. a. p.	Rs. a. p.	K. M.	Rs. a. p.	Rs. a. p.	
5 5	7 12 1	11 13 0	138 15	169 5 7	9 12 3	5 3	8 13 2	13 11 4	60 1	76 15 10	7 11	
				225 khal.	1 khal.					102 khal.	10 khal.	
				16 bare.	13 bare.					13 bare.	5 bare.	
989 1	565 9 7	4 9 2	1,877 13	2,441 14 2	10 6 5	305 15	178 15 1	4 6 11	985 10	672 7 2	5 7 4	
										896 khal.	7 khal.	
										12 bare.	6 bare.	
1,001 11	415 4 1	3 5 0	1,862 8	1,453 2 0	6 3 10	82 19	37 3 5	3 9 4	827 5	696 11 7	6 11 9	
				1,937 khal.			930 khal.					
				10 bare.			6 bare.					
3 8	4 4 6	3 0 3	66 7	63 9 7	7 10 8	12 16	4 3 6	2 10 3	120 18	70 11 0	4 10 10	
				64 khal.	10 khal.					94 khal.	6 khal.	
				16 bare.	4 bare.					5 bare.	4 bare.	

kind rents and the rates deduced therefrom.

14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
CHMAS.						SASIK.						ULTHANG.		
Cash rent.			Grain rent.			Cash rent.			Grain rent.			Cash rent.		
Area.	Rent.	Rent per acre.	Area.	Rent and its value.	Average per acre.	Area.	Rent.	Rent per acre.	Area.	Rent and its value.	Average per acre.	Area.	Rent	Rent per acre.
K. M.	Rs. a. p.	Rs. a. p.	K. M.	Rs. a. p.	Rs. a. p.	K. M.	Rs. a. p.	Rs. a. p.	K. M.	Rs. a. p.	Rs. a. p.	P. M.	Rs. a. p.	Rs. a. p.
...	...	...	1 4	4 3 9	27 15 9	...	...	...	53 3	31 0 0	4 12 0	...	...	...
				1 Khal.	10 Khal.					52 Khal.				
				12 Bare.	13 Bare.					5 Bare.				
12 17	31 11 1	19 11 8	13 1	7 8 0	4 9 7	11 1	2 12 9	2 0 5	168 5	74 13 0	3 9 0	274 14	56 10 6	1 10 4
				10 Khal.	6 Khal.					99 Khal.	4 Khal.			
					3 Bare.					15 Bare.	5 Bare.			
4 12	4 13 10	8 7 4	2 4	4 5 7	15 13 0	43 19	9 14 0	4 12 8	118 1	50 0 5	3 6 0	222 4	32 10 11	1 2 0
				1 Khal.	6 Khal.						4 Khal.			
				16 Bare.	12 Bare.						10 Bare.			
...	...	...	...	...	...	...	...	...	...	...	...	8 16	4 12 0	4 5 1

APPENDIX D.—Showing details of fruitful and unfruitful trees.

ASSESSMENT CLASS.	FRUITFUL TREES.																UNFRUITFUL TREES.				TOTAL OF FRUITFUL AND UNFRUITFUL.					
	Walnut.		Apple.		Pear.		Trel.		Apricot.		Almond.		Peach.		Vine.		Mulberry.		Total.		Young.	Full grown.				
	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17										
FIRST.	253	582	510	1,123	87	172	8	108	21,911	2	67	59	44	292	11,238	24,101	5,975	17,923	8,327	107	683	11,655	27,833	22,693	51,934	74,827
SECOND.	100	174	764	911	2	12	3	8,205	15,167	...	3	2	21	108	9,108	16,379	149,933	149,354	71,701	121	2,405	250,404	223,460	259,510	239,839	499,349
THIRD.	8	12	28	82	2	8	...	1,610	2,937	...	1	...	3	7	1,649	3,044	115,932	51,424	17,098	364	3,361	150,125	71,893	151,774	74,927	226,701
FOURTH.	...	2	...	1	13	118	...	13	118	...	...	...	...	...	13	121	3,892	1,220	385	80	144	4,024	1,749	4,037	1,870	5,907
TOTAL.	361	770	1,302	2,117	91	187	11	20,096	40,033	...	71	65	9	63	22,008	43,645	275,732	219,821	98,511	682	6,593	416,208	324,925	438,214	368,570	806,784

ASSESSMENT CIRCLE.								RABI	
1	2	3	4	5	6	7	8	9	
FIRST.	SOIL.	DETAILS	Wheat.	Giram.	Barley.	Kirs.	Matar.	Masur.	
	MAJING.	Area	25	38	3	2	2	1	
		Produce per acre ...	400	420	400	340	340	340	
		Total produce ...	10,000	15,960	1,200	680	680	340	
		Rate per rupee in seers. Price... .. Rs.	16½ 540-8-8	21 760-0-0	23½ 51-1-0	20½ 33-2-9	20½ 33-2-9	18½ 18-6-0	
	BARJING.	Area	181	341	28	44	21	16	
		Produce per acre ...	400	420	400	340	340	340	
		Total produce ...	72,400	143,220	11,200	14,960	7,140	5,440	
		Price Rs.	3,913-8-3	6,820-0-0	476-9-6	720-12-1	348-4-8	294-0-10	
	BAGH BARJING.	Area	
Produce per acre ...		...	...	...	...	...	...
Total produce ...		...	...	...	...	...	...
Price Rs.		...	...	...	...	...	...
THAJING.	Area	127	97	9	20	9	22		
	Produce per acre ...	320	340	320	340	340	340		
	Total produce ...	40,640	32,980	2,880	6,800	3,060	7,480		
	Price Rs.	2,196-12-1	1,570-7-7	122-8-10	331-11-3	149-4-4	404-5-2		
BAGH THAJING.	Area ... ..	...	...	...	...	...	...
	Produce per acre ...	...	...	...	...	...	...
	Total produce ...	...	...	...	...	...	...
	Price Rs.	...	...	...	...	...	...
CHHAS.	Area ... ..	...	...	...	...	...	...
	Produce per acre ...	...	...	...	...	...	...
	Rate per rupee in seers. Total produce ...	18½ ...	21 ...	23½ ...	20½ ...	20½ ...	18½ ...		
	Price Rs.	...	...	...	...	...	...
SASIK.	Area	6	...	...	4	...	3
	Produce per acre ...	300	...	...	285	...	285
	Total produce ...	1,800	...	...	1,140	...	855
	Price Rs.	97-4-9	...	...	55-9-9	...	46-3-5
ULTHANG.	Area ... ..	...	...	...	...	...	...
	Produce per acre ...	...	...	...	...	...	...
	Total produce ...	...	...	...	...	...	...
	Price Rs.	...	...	...	...	...	...
TOTAL.	Total area	339	476	40	70	32	42		
	Total produce ...	124,840	192,160	15,280	23,580	10,880	14,115		
	Total price Rs.	6,748-1-9	9,150-7-7	650-3-4	1,150-3-10	530-11-8	762-15-5		

1	2	3	19	20	21	22	23	24
ASSESSMENT CIRCLE.	SOIL.	Detail.	KHARIF					
			Tarumba.	China.	Kangni.	Vegetables.	Fruits.	Total matured.
FIRST.	MAJING.	Area	18	...	1	1	...	20
		Produce per acre ...	300	...	300	Rs. 5 per acre.
		Total produce ...	5,400	...	300	5,700
		Rate per rupee in seers. Price ... Rs.	34 158-13-2	26½	26½	...	5-0-0	...	175-2-4
	BARJING.	Area	176	10	18	4	...	208
		Produce per acre ...	300	300	300	Rs. 5
		Total produce ...	52,800	3,000	5,400	61,200
		Price ... Rs.	1,552-15-1	113-3-4	203-12-4	20-0-0	...	1,889-14-9
	BAGH BARJING.	Area
		Produce per acre
		Total produce
		Price ... Rs.
	THAJING.	Area... ..	39	5	...	1	...	45
		Produce per acre ...	240	240	...	Rs. 5
Total produce ...		9,360	1,200	...	...	...	10,560
Price ... Rs.		275-4-8	45-4-6	...	5-0-0	...	325-9-2	
BAGH THAJING.	Area ... ..	...	...	...	...	...	...
	Produce per acre ...	...	...	...	...	...	...
	Total produce ...	...	...	...	...	...	...
	Price ... Rs.	...	...	...	...	...	...
CHRAS.	Area ... ..	...	...	...	1	...	1
	Produce per acre...	...	...	...	Rs. 5	...	...
	Rate per rupee in seers. Total produce ...	34	26½	26½	...	...	...
	Price ... Rs.	...	...	...	5-0-0	...	5-0-0
SASIK.	Area	11	...	...	...	...	11
	Produce per acre ...	200	...	...	...	...	...
	Total Produce ...	2,200	...	...	...	...	2,200
	Price ... Rs.	64-11-3	...	...	...	...	64-11-3
ULTRANG.	Area ... ..	...	...	...	...	...	...
	Produce per acre ...	...	...	...	...	...	...
	Total produce ...	...	...	...	...	...	...
	Price ... Rs.	...	...	...	...	...	...
TOTAL.	Total area	244	15	19	7	...	285	
	Total produce ...	60,760	4,200	5,700	70,660	
	Total price... Rs.	2,051-12-2	158-7-10	575-5-8	25-0-0	...	2,330-5-6	

10	11	12	13	14	15	16	17	18
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CROPS.

Bakla.	Sarshaf.	Vegetables.	Fodder.	Fruit.	Total matured.	Total failed.	Taraddadi and khali.	Total sown.
...	2	...	...	...	73	1	3	77
340	150	...	...	...	...	...	...	...
...	300	...	...	...	29,160	...	...	29,160
20	12	Rs. 5 per acre.	...	...	...	...	...	...
...	25-0-0	...	...	...	1,461-5-2	...	...	1,461-5-2
3	9	2	...	...	644	4	32	680
340	150	...	...	...	...	...	...	...
680	1,350	...	...	...	256,390	...	...	256,390
34-0-0	112-8-0	10-0-0	...	...	12,738-11-4	...	...	12,738-11-4
...	...	...	...	60	60	...	...	50
...
...
...
...	12	...	...	...	296	5	70	871
...	150	...	...	...	...	...	...	...
...	1,800	...	...	...	95,640	...	...	95,640
...	150-0-0	...	...	...	4,925-1-3	...	...	4,925-1-3
...	...	1	...	25	26	...	...	26
...	...	Rs. 5	...	...	Rs. 5	...	...	Rs. 5
...
...	...	5	...	...	5	...	...	5
...	...	7	...	...	7	...	1	8
...	...	Rs. 5	...	...	...	...	...	...
20	12	5	120	...	...	...	...	...
...
...	...	35	...	...	35	...	...	35
...	...	...	...	...	13	1	62	76
...
...	...	...	...	...	3,795	...	...	3,795
...	...	...	...	...	199-1-11	...	...	199-1-11
...	...	...	116	...	116	...	...	116
...	...	...	500	...	...	...	...	...
...	...	...	58,000	...	58,000	...	...	58,000
...	...	...	483-5-4	...	483-5-4	...	...	483-5-4
2	23	10	116	75	1,225	11	108	1,404
660	3,450	...	58,000	...	442,985	...	...	442,985
34	287-8-0	...	483-5-4	...	19,847-8-11	...	...	19,847-8-11

		12	3	4	5	6	7	8	9
				RABI					
RABERREBI CIRCLE	SOIL.	DETAIL.	Wheat.	Giram.	Barley.	Kirs.	Matar.	Masur.	
	MAJING.	Area	105	154	54	6	8	1	
		Produce per acre ..	395	410	395	340	340	340	
		Total produce ...	41,475	63,140	21,330	2,040	2,720	340	
		Price... .. Rs.	2,241-14-3	3,006-10-8	907-10-6	99-8-2	132-10-11	18-6-1	
	BANJING.	Area	1,763	2,104	939	103	186	63	
		Produce per acre ...	395	410	395	340	340	340	
		Total produce ...	696,385	862,640	3,70,905	35,020	63,240	21,420	
		Rate per rupee in seers.	18½	21	23½	20½	20½	18½	
		Price... .. Rs.	37,642-6-11	41,078-1-6	15,783-3-1	1,708-4-8	3,084-14-1	1,157-13-5	
	BAGH BANJING.	Area	
		Produce per acre	
	Total produce ...	...	...	...	...	...	...
	Price... .. Rs.	...	...	...	...	...	...
TEAJING.	Area	473	299	244	42	70	21		
	Produce per acre ...	315	330	315	340	340	340		
	Total produce ...	148,995	96,360	76,860	14,280	23,800	7,140		
	Price... .. Rs.	8,053-12-6	4,588-9-2	3,270-10-3	696-9-4	1,160-15-11	385-15-1		
BAGH TEAJING.	Area ... ..	...	...	...	...	...	...
	Produce per acre ...	...	...	...	...	...	...
	Total produce ...	...	...	...	...	...	...
	Price... .. Rs.	...	...	...	...	...	...
CHHAB.	Area ... ..	...	...	...	...	...	...
	Produce per acre ...	...	...	...	...	...	...
	Total produce ..	...	...	...	...	...	...
	Price... .. Rs.	...	...	...	...	...	...
SASIK.	Area	9	5	9	3	...	2		
	Produce per acre ...	260	275	260	285	...	285		
	Total Produce ...	2,340	1,375	2,340	855	...	570		
	Rate per rupee in seers.	18½	21	23½	20½	20½	18½		
	Price... .. Rs	126-7-10	65-7-7	99-9-2	41-11-4	...	30-12-11		
DELHANG.	Area ... ..	...	...	...	...	...	...
	Produce per acre ...	...	...	...	...	...	...
	Total produce ...	...	...	...	...	...	...
	Price... .. Rs.	...	...	...	...	...	...
TOTAL.	Area	2,350	2,555	1,246	154	264	87		
	Total Produce ...	889,195	1,023,515	471,435	52,195	69,760	29,470		
	Total Price ... Rs.	48,064-9-6	48,738-12-11	20,061-1-0	2,546-1-6	4,278-8-7	1,592-15-6		

25	26	27	28	29	30	31
----	----	----	----	----	----	----

CROPS.

Total failed.	Taraddadi and khali	Total sown.	Total matured both crops.	Total sown.	Percentage of State share.	State share.
1	56	77	93	77	..	...
...
...	...	5,700	34,860	...	...	...
...	...	...	1,636-7-6	...	...	...
...	...	175-2-4	1,898-4-10	...	24½	480-5-5
12	460	680	852	680	...	...
...
...	...	61,200	317,590	...	...	...
...	...	1,889-14-9	14,628-10-1	...	24½	4,115-0-6
...	...	...	16,969-3-4	...	...	...
...	50	50	50	50	...	...
...
...
...
2	324	371	341	371	...	...
...
...	...	10,560	106,200	...	...	...
...	...	325-9-2	5,250-10-5	...	24½	1,477-0-2
...	...	...	6,090-12-1	...	...	...
...	26	26	26	26	...	...
...	...	...	5-0-0	5-0-0	...	...
...
...	...	5-0-0	5-0-0	...	...	...
...	7	8	8	8	...	...
...
...
...
...	...	5-0-0	40-0-0	...	24½	11-4-5
...	...	...	46-6-5	...	...	...
...	65	76	24	76	...	...
...
...	...	2,200	5,995	...	...	...
...	...	64-11-3	263-13-2	...	24½	74-3-5
...	...	...	306-1-6	...	...	...
...	116	116	116	116	...	...
...
...	...	...	58,000	...	...	...
...	...	...	483-5-4	...	24½	45-5-1
...	...	...	186-14-2	...	...	...
15	1,103	1,403	1,510	1,404	...	...
...	...	79,660	522,645	...	...	...
...	...	2,460-5-6	22,397-14-5	...	24½	61,183-3-0
...	...	...	95,197-9-1	...	...	...

1	2	3	19	20	21	22	23	24
ASSESSMENT CIRCLE.	SOIL.	DETAIL.	KHARIF					
			Tarumba.	China.	Kangni.	Vegetables	Fruits.	Total matured.
SECOND.	MAJING.	Area	1	...	...	...	...	1
		Produce per acre ...	340	...	...	...	...	...
		Total produce ...	240	...	...	...	...	240
		Price... .. Rs.	7-0-11	...	...	...	...	7-0-11
	BARJING.	Area	66	10	...	34	...	110
		Produce per acre ...	240	240	...	Rs. 5 per acre.	...	...
		Total produce ...	15,840	2,400	...	...	...	18,240
		Rate per rupee in in seers. Price... .. Rs.	34 465-14-1	26½ 90-8-1	170-0-0	...	728-7-2
	BAGE BARJING.	Area ... ..	...	...	...	...	...	...
		Produce per acre ...	...	...	...	...	...	...
		Total produce ...	...	...	...	...	...	...
		Price Rs.	...	...	...	...	...	...
	THAJING.	Area	23	3	...	6	...	32
		Produce per acre ...	195	195	Rs. 5 per acre.	...	...	...
		Total produce ...	4,485	585	...	...	...	...
		Price... .. Rs.	131-14-7	22-1-2	...	30-0-0	...	183-15-9
	BAGE THAJING.	Area ... ..	...	...	...	...	...	...
		Produce per acre ...	...	...	...	...	...	...
Total produce ...		...	...	...	...	...	...
Price... .. Rs.		...	...	...	...	...	...
CHBAS.	Area ... ..	...	...	...	...	...	...
	Produce per acre ...	...	...	...	...	...	...
	Total produce ...	...	...	...	...	...	...
	Price... .. Rs.	...	...	...	...	...	...
BASIK.	Area	9	...	...	...	...	9	
	Produce per acre ...	165	...	...	...	...	...
	Total produce ...	1,485	...	...	...	...	1,485	
	Rate per rupee in seers. Price... .. Rs.	34 43-10-10	26½	...	Rs. 5	...	...	43-10-10
ULBHANG.	Area ... ..	...	...	...	...	...	...
	Produce per acre ...	...	...	...	...	...	...
	Total produce ...	...	...	...	...	...	...
	Price... .. Rs.	...	...	...	...	...	...
TOTAL.	Area	99	13	...	20	...	159	
	Total produce ...	22,050	2,985	...	...	...	25,035	
	Total price ... Rs.	648-8-5	112-10-3	...	200-0-0	...	961-2-8	

10	11	12	13	14	15	16	17	18
----	----	----	----	----	----	----	----	----

CROPS.

Bakla.	Sarshaf.	Vegetables.	Fodder.	Fruits.	Total matured.	Total failed.	Taraddadi and khali.	Total sown.
4	7	...	...	...	339	2	13	354
340	150	...	...	...	...	..	...	...
1,360	1,650	...	...	...	133,455	...	...	133,455
68-0-0	87-8-0	...	...	...	6,562-4-7	...	...	6,562-4-7
41	229	8	...	...	5,436	52	283	5,771
340	150	Rs. 5 per acre.	...	...	...	...	...	...
13,940	31,350	...	...	...	2,097,900	...	...	2,097,900
20	12	...	120	...	...	...	...	...
697-0-0	2,862-8-0	40-0-0	...	...	1,04,054-3-8	...	...	1,04,054-3-8
...	...	...	...	37	37	...	...	37
...
...
...
7	65	...	1	...	1,215	13	219	1,447
340	150	...	50	...	...	...	...	...
...	9,750	...	500	...	380,065	...	...	3,80,065
119-0-0	812-8-0	...	4-2-8	...	19,092-2-7	...	...	19,092-2-7
...	...	...	...	14	14	...	...	14
...
...
...
...	...	24	...	...	24	...	2	26
...	...	Rs. 5	...	...	...	...	...	...
...
...	...	120-0-0	...	...	120-0-0	...	...	120-0-0
...	2	...	...	...	30	1	173	204
...	150	...	...	...	...	...	...	...
...	300	...	...	...	7,780	...	...	7,780
20	12	Rs. 5 per acre	120	...	...	...	...	...
...	25-0-0	...	...	...	389-0-10	...	...	389-0-10
...	...	...	1,412	...	1,412	...	4	1,416
...	...	...	500	...	...	...	...	...
...	...	...	706,000	...	706,000	...	...	706,000
...	...	...	5,883-5-4	...	5,883-5-4	...	...	5,883-5-4
52	303	32	1,413	51	8,507	62	694	9,289
17,660	45,450	...	706,500	...	3,325,200	...	...	3,325,200
894-0-0	3,737-8-0	180-0-0	5,887-8-0	...	1,36,101-1-0	...	...	1,36,101-1-0

10	11	12	13	14	15	16	17	18
----	----	----	----	----	----	----	----	----

Crops.

Bakla.	Sarshaf.	Vegetables.	Fodder.	Fruit.	Total matured.	Total failed.	Taraddadi and khali.	Total sown.
4 1,360 68-0-0	14 2,100 175-0-0	...	...	...	742 282,025 13,748-11-2	4 ...	25 ...	771 282,025 13,748-11-2
52 15,520 776-0-0	359 53,850 4,487-8-0	17 ... 85-0-0	1 500 4-2-8	...	10,167 3,721,610 1,83,366-14-8	62 ...	655 ...	10,884 3,721,610 1,83,366-14-8
...	...	...	...	88	88	...	1	89
...
13 2,980 149-0-0	144 21,600 1,800-0-0	3 ... 15-0-0	3 1,500 12-8-0	...	3,283 924,495 45,789-0-6	38 ...	797 ...	4,118 924,495 45,789-0-6
...	...	...	...	43	44	...	...	44
...	...	5-0-0	...	...	5-0-0	...	...	...
...	...	40 ... 200-0-0	...	...	40 ... 200-0-0	...	8 ...	48 ... 200-0-0
...	8 1,200 100-0-0	...	...	...	149 33,205 1,648-13-9	2 ...	490 ...	641 33,205 1,648-13-9
...	...	...	2,288 1,144,000 9,533-5-4	...	2,288 1,144,000 9,533-5-4	...	12 ...	2,300 1,144,000 9,533-5-4
69 19,860 993-0-0	525 78,750 6,562-8-0	61 ... 305-0-0	292 1,146,000 9,550-0-0	131 ...	16,801 6,105,335 2,54,291-13-5	106 ...	1,988 ...	18,895 6,105,335 2,54,291-13-5

1	2	3	19	20	21	22	23	24	
ASSESSMENT CIRCLES.	SOIL.	DETAIL.						KHARIF	
			Tarumba.	China.	Kangni.	Vegetables.	Fruits.	Total matured.	
		MAJING.	Area	19	...	1	2	...	22
			Total produce ...	5,640	...	300	5,940
			Total price ... Rs.	165-14-1	...	11-5-2	10-0-0	...	187-3-3
		BABING.	Area	274	25	18	52	...	369
			Total produce ...	74,784	6,360	5,400	86,544
			Total price ... Rs.	2,199-7-6	240-0-0	203-12-4	260-0-0	...	2,903-4-10
		BAGH BABING.	Area
			Total produce
			Total price ... Rs.
		THAJING.	Area	79	12	...	10	...	101
			Total produce ...	16,480	2,405	18,885
	Total price ... Rs.	484-11-3	90-12-0	..	50-0-0	...	625-7-3		
BAGH THAJING.	Area ... ..	...	...	...	...	...	...
	Total produce ...	...	...	...	...	...	...
	Total price ... Rs.	...	...	...	...	...	...
CHHAB.	Area ... ..	...	...	...	1	...	...
	Total produce ...	...	...	...	..	...	...
	Total price ... Rs.	...	...	...	5-0-0	...	5-0-0
SASIK.	Area	20	...	...	...	...	20
	Total produce ...	3,685	...	...	...	...	3,685
	Total price ... Rs.	108-6-1	...	...	...	...	108-6-1
ULTEANG.	Area ... ..	...	...	...	...	...	...
	Total produce ...	...	...	...	...	...	...
	Total price ... Rs.	...	...	...	...	...	...
GRAND TOTAL.	Area	392	37	19	65	...	513		
	Total produce ...	100,589	8,765	5,700	...	...	115,054
	Total price ... Rs.	2,958-7-11	330-12-0	215-7-6	325-0-0	...	3,829-5-6		

GRAND TOTAL OF CIRCLES.

1	2	3	4	5	6	7	8	9		
THIRD.	ASSESSMENT CIRCLE.	DETAIL.	RABI							
			SOIL.	Wheat.	Giram.	Barley.	Kirs.	Matar.	Masur.	
			MAJING.	Area	31	946	33	1	6	...
			Produce per acre ...	350	380	350	100	100	...	
			Total produce ...	10,850	93,490	11,550	100	600	...	
			Price ... Rs.	586-7-9	4,451-8-10	491-7-10	4-14-0	29 4-3	...	
			BARJING.	Area	859	1,942	671	49	204	47
			Produce per acre ...	350	380	350	100	100	100	
			Total produce ...	300,950	737,960	234,850	4,900	20,400	4,700	
			Price ... Rs.	16,251-5-7	35,140-15-2	9,993-9-10	239-0-5	995-1-11	254-0-10	
BAGI BARJING.	Area ... ..	...	...	...	...	...	...
Produce per acre ...	...	...	...	...	...	...	...
Total produce ...	...	...	...	...	...	...	...
Rate per rupee in seers.	18½	21	32½	20½	20½	18½				
Price ... Rs.	...	...	...	...	...	...	...
TEAJING.	Area	168	754	203	23	94	24			
Produce per acre ...	280	305	280	100	100	100				
Total produce ...	52,640	229,970	56,840	2,300	9,400	2,400				
Price ... Rs.	2,845-8-6	10,950-15-2	2,418 11-7	112-3-2	458-8-7	129-11-8				
BAGI TEAJING.	Area ... ..	...	...	...	...	...	...
Produce per acre ...	...	...	...	...	...	...	...
Total produce ...	...	...	...	...	...	...	...
Price ... Rs.	...	...	...	...	...	...	...
CHBAR.	Area ... ..	...	...	...	...	...	...
Produce per acre ...	...	...	...	...	...	...	...
Total produce ...	...	...	...	...	...	...	...
Price ... Rs.	...	...	...	...	...	...	...
SASIK.	Area	9	29	13	1	3	...			
Produce per acre ...	230	250	230	80	80	...				
Total produce ...	2,070	7,250	2,990	80	240	...				
Price ... Rs.	111-14-3	345-3-10	127-3-9	3-14-5	11 11-4	...				
USTEANG.	Area ... ..	...	...	...	...	...	...
Produce per acre ...	...	...	...	...	...	...	...
Total produce ...	...	...	...	...	...	...	...
Rate per rupee per acre.	18½	21	23½	...	20½	...				
Price ... Rs.	...	...	...	...	...	...	...
TOTAL.	Area	1,047	2,971	920	74	307	71			
Total produce ...	366,210	1,069,660	306,230	7,230	30,610	5,100				
Price ... Rs.	19,791-2-1	50,888 9-1	13,031-1-0	360-0-0	1,494-10-1	231-12-6				

CROPS.

Total failed.	Taraddadi and khali.	Total sown.	Total matured both crops.	Total sown.	Percentage of State share.	State share.
...	353	354	340	354	...	...
...
...	...	240	133,895	...	...	...
...	...	7-0-11	{ 6,568-5-8 } { 7,620-7-0 }	...	24½	1,847-15-4
...	5,661	5,771	5,546	5,771	...	...
...
...	...	18,240	2,116,140	...	...	...
...	...	...	1,04,780-10-10	...	...	...
...	...	726-7-2	{ 1,21,545-9-5 }	...	24½	29,474-12-10
...	37	37	37	37	...	...
...
...
...	1,415	1,447	1,247	1,447	...	...
...
5,070	...	5,070	385,135	...	...	...
...	...	183-15-9	{ 19,276-2-4 } { 22,360-5-3 }	...	24½	5,422-6-1
...	14	14	14	14	...	...
...
...
...
...	26	26	26	26	...	...
...
...	...	...	{ 120-0-0 } { 139-3-3 }	...	24½	33-12-1
...	195	204	39	204	...	...
...
...	...	1,485	9,265	...	...	...
...	...	...	432-11-8	...	...	...
...	...	43-10-10	{ 501-15-6 }	...	24½	121-11-6
...	1,416	1,416	1,412	1,416	...	...
...
...	...	...	706,000	...	...	...
...	...	...	{ 5,883-5-4 } { 2,274-14-2 }	...	24½	551-10-7
...	9,117	9,269	8,659	9,269	...	...
...	...	25,035	3,350,235	...	...	...
...	...	961-2-8	{ 1,37,032-3-8 } { 1,54,442-5-7 }	...	24½	87,452-4-7

FROM

R. T. CLARKE, ESQUIRE, I.C.S.,

Settlement Officer, Baltistan.

TO

THE SETTLEMENT COMMISSIONER,

JAMMU AND KASHMIR STATE.

No. 1368, dated Srinagar, the 18th December 1902.

SUBJECT :

LADAKH ASSESSMENTS.

I have the honor to forward herewith the Revenue Registers of Ladakh Tahsil with map and seven appendices.

The area measured is 145,409 acres of which 23,150 only is cultivated. The number of villages according to Tahsil papers prior to this Settlement was 89, but following the lines laid down by Pandit Radha Kishen Koul in his Settlement I have raised the number to 110 including Mansar and Rukchu, the latter containing not an acre of cultivated ground. The population according to last Census amounts to 31,636, the number of male and females being practically equal. The number of houses is 7552. As the village of Mansar lies in the midst of Chinese Tibet and is never visited by Kashmir Revenue officials it has no concern with the present operations. The Revenue of eleven villages marked * in remark column reported on by me in my letter No. 1159, dated 11th October has already been fixed by the State Council, so that now sanction is required to the Assessment of 93 villages only. In 24 of these marked † in remark column the difference between the new Revenue and the old is less than eight annas and on these orders are practically unnecessary. In the remaining 74 villages changes in assessments have been found necessary, but in no case do these changes exceed the 20% reduction or increase which I was empowered to arrange.

Register No. 3 shows the final result. The figures in red ink show the distribution rates of the various classes of soil and the total land revenue imposed. As the *Hadbast* numbers of this register do not agree with the reference numbers given in the Assessment Registers, for conveniences of reference, I have added at the end of that Register an index giving reference to the other two registers which show the data on which the assessments were based.

It will be noted that column No. 15 (fixed grazing fees) is for many villages blank. In these cases grazing fees were included in the assessment as in the Kargil Tahsil. In the remaining villages in compliance with the orders of the Revenue Member conveyed to me in the Settlement Commissioner's telegram No. 1756 of 30th September, the grazing fee has been kept apart. In certain cases where the area cultivated is small and the grazing fee large, this course was necessary, but in the villages of Nuhra it is perhaps to be regretted that the amount has not been distributed over the holdings.

It will be found that in some cases the area figures in the final register do not agree with the preliminary Registers. This is due to corrections in *takmil*. In two cases Khardong and Khurra where the mistakes were large, alterations were made in the assessments.

Register I (A. B. C. D. E.) contains the available data for assessment showing the area of Muafi, Nautor and Khalsa, the revenue-paying area according to classes, the assessment actually paid at present, approximate rates *Kismwar* of the old revenue per kanal according to the proportions determined in the distribution files, the assessment obtained by applying Kargil rates and where available the old Settlement figures.

The land revenue of Ladakh up to the present excluding Khalsa, Nautor and Muafi lands is as follows :—

Cash	...	...	Rs.	40,391.	
Charas	...	...	...	95-8	at 8 per rupee.
Postins	...	...	...	25	at 1 rupee each.
Sheep	...	...	...	150	at 1-8-0 "
Yaks	...	...	...	60	at 10-0-0 "
Muska Karponi	...	...	...	31-10	at 2 seers per rupee.
Gram (Sas)	...	...	...	2,154-2-3	} at 2 mds. per rupee.
„ (Kharidi)	...	...	...	4,618-12	
Salt	...	...	...	50	32 seers „ „
Fuel and grass	...	...	...	5,392-1-3	2 mds. „ „
Total Rs.				52,970-5-9	

Note.—Kharidi grain is actually taken at 45 seers per rupee, but as it is practically kind revenue, I have treated it as such. The new revenue amounts to Rs. 5,115-12-0 and the fixed grazing fee to Rs. 3,333-4-0. The land revenue is, therefore, reduced by Rs. 1,800-9-9. Last year's grazing demand was Rs. 3,751-9-0, but out of this Rs. 768-3-0 was not paid by the Hamis Monastery and the net income was, therefore, Rs. 2,983-6-0, so that net less of revenue when land revenue and grazing fees are taken together amounts to Rs. 1,445-11-9 only a very small decrease, but in my opinion an absolutely necessary one. Against this is to be set the gain arising from the resumption of Muafis held without proper title, or much in excess of the grant, so that the net result of Settlement should be a slight gain to the State and this gain will be consistent with some relief to the cultivators.

The cost of the Ladakh Settlement during the present year excluding the pay and travelling allowance of the Assistant Settlement Officer has been Rs. 9,517-13-0, or including the pay and allowance of the Assistant Settlement Officer, Rs. 11,160-14-7. During a small part of last year, work was also done in Ladakh by one Deputy Superintendent, but the cost which was small was debited to Baltistan.

I have the honor to be,

SIR,

Your most obedient servant,

(Sd.) R. T. CLARKE,

Settlement Officer, Baltistan.

APPENDIX I.

Rainfall and Climate.

As will be seen from the accompanying table, the rainfall of Ladakh is exceeding small. The table shows the *combined* rain and snow-fall in Leh for the four years 1897—1900 taken from the Meteorological Records of the Government of India Meteorological Observatory. The figures from November to March inclusive may be taken *as snow-fall* from April to October, inclusive, as rain-fall proper. Cultivation is consequently almost entirely dependent on the snow-fall in the surrounding mountain ranges which is considerably less than in Baltistan. In Leh snow usually lies from the end of December to middle of March. On account of the frost ploughing cannot be begun before the middle or end of April. In Upper and Lower Ladakh the field work can be done over a proportionately shorter or longer period. Leh being about the mean for the whole district. Here the summer (shade) temperature rarely exceeds 86°F, whilst in winter for several months the maximum shade temperature does not rise above freezing point. The minimum shade may, in winter, fall to 18°F. During the greater part of the year the sky is comparatively cloudless, but varies considerably.

In the present year (1901) the spring months were cloudy, and in consequence, as the sun could not melt the snow on the hills, there was great lack of water for irrigation, the crops were late in springing up and had not time to ripen properly.

Month.	1897.	1898.	1899.	1900.
January	·91	·06	·12	·66
February	·27	·41	·23	·26
March	·75	·00	·12	·26
April	·07	·14	·23	1·19
May	2·17	·10	·47	·25
June	·05	·00	·40	·20
July	·09	·40	·21	·96
August	·37	·29	1·05	·59
September	·83	·04	·07	·04
October	·05	·03	·07	·18
November	·02	·00	·00	·00
December	·01	1·12	·03	·16
Total	5·09	2·59	3·00	4·75

The mean snow and rain-fall combined for many years is 3·17 inches.

(Sd.) R. T. CLARKE,

Settlement Officer,

BALTISTAN.

APPENDIX II.

Showing proportion of lands held by various castes.

Class or caste.	Area in acres.	Villages in whole.	Villages in part.	Percentage on the whole cultivated area.	REMARKS.
Bhot	17,563	76	31	75·8	
• Mussalman	1,488	1	31	6·5	
Brakpa	286	...	2	1·2	
Village sites Shamilats, &c. ...	3,812	...	108	16·5	
Total ...	23,150	77	172	100	

* Begdong is inhabited by Nurbakhschi Mussalman, Shushat by Shiaas.
 Remaining Mussalman are Sunnis mostly Argoons.

(Sd.) R. T. CLARKE,
Settlement Officer,
 BALTISTAN.

APPENDIX III.

Showing the percentage of area cultivated by Assamis and tenants.

WHOLE CULTIVATED AREA.		CULTIVATED BY ASSAMIS.		CULTIVATED BY TENANTS.										PERCENTAGE.		REMARKS.				
Holdings.	Area.	Holdings.	Area.	Without rent.		Paying revenue only.		Cash paying.		Batai.				Assamis.	Tenants.					
				Holdings.	Area.	Holdings.	Area.	Holdings.	Area.	1	2	3	4	Holdings.	Area.					
6,623	23,150	4,948	21,520	125	133	94	85	245	252	61	42	2	2	6	4	1,152	1,112	92.91	7.09	

(Sd.) R. T. CLARKE,
Settlement Officer,
BALISTAN.

APPENDIX IV.

Showing average size of holdings in acres.

<i>Per holding.</i>			<i>Per plough.</i>		REMARKS.
Area cultivated by Assamis.	Area cultivated by tenants.	Average per holding.	Average per plough on area cultivated.	Excluding Ul.	
21,520 acres ...	1630	23,150	23,150	20,479	
...	...	6633	5572	...	
		3.5	4	3	

(Sd.) R. T. CLARKE,

Settlement Officer,

BALTIKTAH.

APPENDIX V.

Showing sales and mortgages attested in mutations.

<i>Area in acres.</i>		<i>Percentage on total cultivated area.</i>		Price per acre of area sold.	Money per acre mortgaged.	REMARKS.
Sold.	Mortgaged.	Sold.	Mortgaged.			
51	17	.22	.07	148	130	

(Sd.) R. T. CLARKE,

Settlement Officer,

BALTIKTAH.

APPENDIX VI.

Note on classification of soils.

In Ladakh the cultivated area has been classified as follows by Pandit Radha Kishen Koul and his classification has been followed by me :—

- I. Nazhing corresponding to the Muljhang of Baltistan (Puja is done at the time of sowing.)
- II. Kungjhing corresponds to *barsud* and differs little if at all from Nazhing. It is a little further from the *Abadi* and *Puja* is not done at sowing time.
- III. Barzhing corresponds in quality to *bruk* but land under this class is also found in the lowlying villages.
- IV. Thazhing. Distant and poor lands slightly better than the "dass" of Baltistan.
- V. Ulthang fodder lands the 'Ul' of Baltistan.

(Sd.) R. T. CLARKE,

Settlement Officer,

BALTISTAN.

APPENDIX VII.

General Note.

Communications.—As a rule the roads are fairly good and communications generally easy.

Mills.—There are 1009 mills in the Tahsil giving an average of 9 per village.

Except near Leh and on the Leh trade route the income is *nil*.

Grazing.—Grazing in all parts is plentiful in summer, but owing to the prolonged winter, much fodder grass is grown, about $\frac{1}{3}$ of the entire cultivated area being Ul.

Irrigation. is usually safe and water sufficient.

Fruit.—The upper part of Ladakh grows no fruit of any kind. In the Valley of Indus below Nimo fruit is plentiful. Apples, Walnuts, Mulberries and Appricots, and in Dah and Skir buchan grapes. In Nubra Appricots are grown.

Begar.—The *begar* of Ladakh is not oppressive in the lower parts or on the Leh road, but in connection with the collection of Phuli and Suhafa I fear that it presses hardly as also in the supply of free transport to the State Missions and traders sent to Lhassa. I have not had time to go into the question fully, but an investigation might be conducted through the Wazir-Wazarat to show whether the profit to the State would not allow the payment of proper wages and if not the *begar* is hardly justifiable. I understand the profit from the mines is small. At present the Coolies are paid 0-1-0 per day only.

(Sd.) R. T. CLARKE,

Settlement Officer,

BALTISTAN.

No. 31 of 1902.

FROM

MAJOR J. L. KAYE,

SETTLEMENT COMMISSIONER,

Jammu and Kashmir State.

To

THE REVENUE MEMBER

OF STATE COUNCIL,

J A M M U.

Dated ^{Camp}_{Dharmoul}, the 7th January 1902.

SUBJECT :

LADAKH ASSESSMENTS.

SIR,

I have the honor to forward for the consideration and orders of His Highness the Maharaja in Council, a copy of a letter No. 1368, dated the 18th December 1901, from the late Settlement Officer in Baltistan and Ladakh, and of its seven Appendices, reporting on the Settlement work done in Ladakh, and the Map. Revenue Register and Register showing the final results, subject to the orders which may be passed on the Muafi files of the Settlement in original.

2. I forward the two Registers in original as considerable delay must occur if these are now copied in my office: but copies of these will be supplied hereafter if required for record in your office. Considering that the Settlement Officer has distributed and thereby given effect to the assessments proposed by him in anticipation of the sanction of the State Council, it seems very necessary that orders should be passed without unnecessary delay.

3. In the index given in Register No. 3, allusion is made to Register No. 1 (A. B. C. D. and E.) This Register so called consists only of rough village notes, of which the important portions have been incorporated in the Revenue Register and the figures of which have been reproduced in the Revenue Register. No useful purpose will, therefore, be served by forwarding these papers.

4. As was contemplated in the Resolution of the State Council No. 18, dated the 2nd May 1901, the work done in Ladakh has been confined to a redistribution only of the current demand and such slight modifications in that demand where the incidence appeared to the Settlement Officer to fall too heavily or unnecessarily lightly on certain villages. It was not a regular Settlement. No attempt was made to ascertain what are fair rates according to produce estimates and prices obtaining, the current demand was merely distributed as fairly as possible and equalised in its incidence on individual villages to a certain extent.

5. Under the Resolution quoted the Settlement Officer was allowed to exercise his discretion in raising or lowering village assessments when necessary to the limit of Rs. 20 per centum and authorised to distribute those assessments subject to the final approval of the Durbar. It is to obtain this final approval that these papers are now being forwarded for orders.

6. Under the circumstances it is obviously unnecessary for me to discuss the bare report submitted at any length. The Settlement Officer was authorised to exercise his own judgment and he has done so in all but eleven villages in regard to which he reported the proposed assessments for orders which were passed in Resolution No. 24, dated the 2nd November last.

7. The financial results are shewn to be a reduction in the land revenue and grazing fees of Rs. 1,445-11-9, and that the new demand has been fixed at Rs. 54,496 including grazing dues: but this is not the true financial result since the cost of the Patwar Establishment and payments to Lambardars have also to be deducted (*vide* the Resolution of the State Council No. 29, dated the 25th August 1901.)

The actual financial result cannot be obtained from the Report, now submitted nor can this be accurately prepared till the orders of the State Council are received on the Muafi Files.

8. The files in regard to Muafi assignments have been separately submitted by the Settlement Officer and will be shortly forwarded, for consideration, with my remarks.

9. The cost of the operations has been very small, excluding the salary and travelling expenses of officers it has amounted to less than Rs. 10,000.

10. With regard to the information given in Appendix V, I would recommend that the prohibition on mortgage and sale issued in regard to Baltistan should be extended to Ladakh also.

11. The remarks contained in Appendix VII in regard to *begar* will, no doubt, attract the attention of His Highness in Council. It is to be regretted that Mr. Clarke was unable to report fully on this important subject.

12. Though this report is very brief and in some respects incomplete since, besides the *begar* question alluded to in the last paragraph, the important subject of grazing facilities and grazing dues has not received that detailed consideration which its importance rendered advisable, the arrangements in regard to collections in kind are not discussed and it may be a question whether the Settlement Officer would not have been well advised to make somewhat larger divergences in some cases from the current demand, these would have required a reference to the State Council for orders, it must be remembered that Mr. Clarke had a very heavy piece of work to complete in Baltistan during the past six months. Under the circumstances I consider it very creditable that he was able to do as much as he has done to put revenue collections in Ladakh on a better footing and trust that his assessments will be sanctioned and his work suitably acknowledged.

I have the honor to be,

SIR,

Your most obedient servant,

KHUSHI MUHAMMAD, P. A.,

FOR SETTLEMENT COMMISSIONER,

Jammu and Kashmir State.

NOTE

ON

LADAKH ASSESSMENTS.

The Settlement operations in Ladakh were intended to secure equal incidence of the land revenue on the several villages and its distribution over the holdings comprised therein. It was thus not a Regular Settlement and no attempt was consequently made to ascertain the revenue rates based on produce estimates and prices current.

The Settlement Officer was authorised by the State Council Resolution No. 18, dated 2nd May 1901, to raise or lower village assessments in cases where they would be found to be unfairly heavy to the extent of 20 per cent. on the present land revenue and to distribute them over the holdings subject to the final confirmation by the Durbar.

Later on, when the Settlement Authorities took the work of new Assessment actually in hand, it was found that the Grazing fees demand was, in fact, a real grievance of the people, and that a fluctuating annual assessment of grazing fees would be a source of constant trouble and hardship to the people. The Settlement Authorities proposed that the grazing fees demand be abolished in the *Ilaga* of Ladakh in which it was being levied, and that they be authorized to take into consideration the number of cattle and livestock as well as the grazing facilities enjoyed by, and available for, each tract, when determining the revenue assessment for the *Ilaga* as was done in the case of Baltistan. The State Council accepted the above proposal in their Resolution, dated 25th October 1901, recorded as No. 23, dated 15th November 1901.

The State Council further directed that as the current assessment of Ladakh was reported to be enormously heavy, the Lamberdari and Patwar cess should be considered to have been included in the total *Jama* (*vide* Resolution No. 29, dated 26th August 1901).

At the time of Assessment, the Settlement Officer found it difficult to confine his powers within the limit of 20 per cent. in respect of 11 villages dealt with in the Resolution No. 24, dated 2nd November 1901, and the proposals of the Settlement Officer with regard to the reduction of assessment were consequently sanctioned by the Durbar.

The Settlement Officer now sends in his final report on Assessments in Ladakh. From its perusal it would appear that no effect has been given in the revised assessments to the Resolution No. 23, dated 15th November 1901, directing that the grazing dues should be merged into the land revenue in *Ilagas* Khardong, Nubra, Touchi, Rukshu and the villages of Houle, Kuel and Kharnak of Hemis Monastery. In the other tracts of Ladakh, however, the terms of the Resolution have been complied with. As a consequence the land revenue *parta* is higher in the former tracts than that in to the latter.

Under these circumstances to secure uniformity would it not be better to merge the grazing dues of Khardong, Nubra and other similar villages too in their *Jamas*. The Settlement Commissioner may be asked to make arrangements, if possible, in this behalf.

A rough comparison of the revenue rates sanctioned for Kargil with those applied to Ladakh is sketched herein below ; figures in black relate to Kargil, while those in red pertain to Ladakh :—

Class of soil with name of Tahsil.	Maljang.	Barsud.	Dass.	Druk.	U.	All round rate per acre.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
I. Kargil	3 4 0	3 2 0	1 8 0	1 12 0	0 8 0	2 8 0
Ladakh	6 8 0	5 4 0	4 0 0	2 10 0	1 5 6	3 11 4
II. Kargil	3 0 0	2 12 0	1 4 0	1 8 0	0 8 0	2 4 6
Ladakh	3 0 0	2 3 0	2 0 0	1 0 0	0 8 0	2 8 0
III. Kargil	2 6 0	2 2 0	1 0 0	1 0 0	0 8 0	1 14 0
Ladakh	2 8 0	2 0 0	1 8 0	1 0 0	0 8 0	2 0 0

From the above statement, it will be seen that rates for Kargil are lighter than those for Ladakh, especially when it is borne in mind that the former *Ilaga* is more fertile and prosperous.

The old land revenue amounts to Rs. 52,958-5-9, and the Grazing dues to Rs. 2,983-6-0, *i.e.*, Rs. 55,941-11-9 in all.

The new land revenue comes to Rs. 51,157-12-0, and the Grazing dues to Rs. 3,338-4-0, making a total of Rs. 54,496-0-0. Thus the net loss of revenue to the State when land revenue and Grazing fees are taken together, amounts to Rs. 1,445-11-9. To this decrease is to be added the permanent cost of Patwar Establishment Rs. 2,760 and payments to Lambardars, &c, Rs. 2,406, total Rs. 5,166, but the actual financial result cannot be obtained till the Council orders have been passed on all the *Muaû* files, awaiting disposal.

The question of *kar begar* is briefly touched by the Settlement Officer in his report. The *begar* in the lower part of Ladakh is not oppressive, but the whole question demands to be grappled with thoroughly once for all as it often presents itself in one form or the other.

As regards the alienation of land by sale or mortgage, I concur with the Settlement Commissioner in recommending to extend the prohibition against alienation of land to Ladakh as well.

In regard to the collection in kind, it may be noted that the Settlement Officer has made arrangements in this behalf, and specified the proportion and the description of kind payable in the *parchas* (*vide* his report on work done by Ladakh Settlement during 2nd-quarter of the season).

In conclusion I have to point out the satisfactory way in which Mr. Clarke, the Settlement Officer, has conducted these operations in Ladakh in so short a time.

(Sd.) GHULAM AHMAD KHAN, K.B.,
Revenue Member of Council.

*Extract from PROCEEDINGS of a Meeting No. 50 of the JAMMU AND KASHMIR
STATE COUNCIL, held at Srinagar, on Thursday, the 29th October 1903,
at 12 (noon.)*

READ AGAIN--

Resolution passed on 29th April 1901, and recorded as Resolution No. 18, dated 2nd May 1901, in connection with Ladakh Settlement.

Read also, Settlement Commissioner's letter No. 21, dated 7th January 1902, to the Revenue Member of Council, forwarding for consideration and orders of His Highness the Maharaja in Council, copy of a letter No. 1368, dated 18th December 1901, from the late Settlement Officer, Baltistan and Ladakh, and stating that considering that the Settlement Officer has distributed and thereby given effect to the assessments proposed by him in anticipation of Council sanction, early Council orders are solicited.

1. Resolved--

That formal sanction be, as recommended accorded to the assessment effected and announced.

As contemplated in the Resolution quoted above the work done in Ladakh has been confined to a re-distribution only of the current demand, and such slight modifications in that demand, where the incidence appeared to the Settlement Officer to fall too heavily or unnecessarily lightly on certain villages. It was not a regular Settlement. No attempt was made to ascertain what are fair rates according to produce estimates and prices obtaining, the current demand was merely distributed as fairly as possible, and equalised in its incidence on individuals villages to a certain extent.

Under the above Resolution the Settlement Officer was allowed to exercise his discretion in raising or lowering village assessments when necessary to the limit of Rs. 20 per centum, and authorised to distribute these assessments. It is to obtain the final approval of the Durbar, that these papers are now being forwarded for orders.

Under the circumstances it is obviously unnecessary for the Settlement Commissioner to discuss the bare report submitted at any length. The Settlement Officer was authorised to exercise his own judgement and he has done so in all, but all villages in regard to which he reported the proposed assessments for orders, which were passed in State Council Resolution No. 24, dated 2nd November 1901.

With regard to the alienation of assami rights by sale and mortgage, Settlement Commissioner recommends that the prohibition on mortgage and sale issued in regard to Baltistan should be extended to Ladakh also.

The Revenue Member concurs with the Settlement Commissioner.

In connection with *kar begar* the Settlement Officer remarks that it is not oppressive in the lower part or on the Leh road, but in connection with the collection of *Phuli* and *Sohaga*, it presses hardly, as also in the supply of free transport to the State missions and traders sent to Lhasa.

He further adds that he had no time to go into the question fully, but an investigation might be conducted through the Wazir-Wazarat to show whether the profit to the State would not allow the payment of proper wages, and if not, the *begar* is hardly justifiable, the Settlement Commissioner understands that the profits from the mines is small, and the coolies are paid one anna per day.

The Settlement Commissioner remarks that the observations made by the Settlement Officer in regard to *begar* will, no doubt, attract attention of His Highness in Council, he adds that it is to be regretted that Mr. Clarke was unable to report fully on this important subject.

The Revenue Member says that the *begar* in the lower part of Ladakh is not oppressive, but the whole question demands to be grappled with thoroughly once for all, as it often presents itself in one form or the other.

Settlement Commissioner notes that the important subject of grazing facilities and grazing dues has not received that detailed consideration, which its importance rendered advisable and the arrangements in regard to collections in kind are not discussed, and it may be a question whether the Settlement Officer would not have been well advised to make somewhat larger divergences in some cases from the current demand, these would have required a reference to the State Council for orders, it must be remembered that Mr. Clarke had a very heavy piece of work to complete in Baltistan during the past 6 months.

Under the circumstances Settlement Commissioner considers it very creditable that the Settlement Officer was able to do as much as

2. Resolved (Revenue Member concurring)—
That sales and mortgages of assami rights in land be prohibited, unless specially authorised by the Durbar and permission, therefore, previously had and obtained.

3. Resolved—
That the Revenue authorities be requested to submit detailed report on the *begar* question for the consideration of the Council.

he has done, to put revenue collections in Ladakh on a better footing and trusts that his (Settlement Officer's) assessments will be sanctioned and his work suitably acknowledged.

The Revenue Member observes that from a perusal of the report it would appear that no effect has been given in the revised assessments to Resolution No. 23, dated 15th November 1901, directing that the Grazing dues should be merged in the land revenue in *Ilagas* of Khardong, Nubra, Touche, Rukshu and the villages of Hanle, Kuel and Kharnak of mouastry. In the other tracts of Ladakh, however, the terms of the Resolution have been compiled with. As a consequence the land revenue *parta* is lighter in the former tracts than in the latter. Under the circumstances, to secure uniformity, would it not be better to merge the Grazing dues of Khardong, Nubra and other similar villages too in their *Jamas*. The Settlement Commissioner may be asked to make arrangements if possible, in this behalf.

In regard to collections in kind the Revenue Member observes that the Settlement Officer has made arrangements in this behalf, and specified the proportion and the description of kind payable in the *parchas* (*vide* his report to the work done by Ladakh Settlement during second quarter of the season).

A rough comparison of the revenue rates sanctioned for Kargil with those applied to Ladakh, is sketched by the Revenue Member as below :—

Class of soil with names of Tahsil.	Muljang.	Barsud.	Dass.	Brak.	Ul.	All round rate per acre.
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Ladakh	6 8 0	5 4 0	4 0 0	2 10 0	1 5 6	3 11 4
Kargil	3 0 0	2 12 0	1 4 0	1 8 0	0 8 0	2 4 6
Ladakh	3 0 0	2 8 0	2 0 0	1 0 0	0 8 0	2 8 0
Kargil	2 6 0	2 2 0	1 0 0	1 0 0	0 8 0	1 14 0
Ladakh	2 8 8	2 0 0	1 8 0	1 0 0	0 8 0	2 0 0

From the above statement it will be seen that rates for Kargil are lighter than those for Ladakh, especially when it is borne in mind that the former *Ilaga* is more fertile and prosperous.

The old land revenue amounts to Rs. 52,958-5-9, and the grazing dues to Rs. 2,983-6-0 that is, Rs. 55,941-11-9 in all.

The new land revenue comes to Rs. 51,157-1-0, and the grazing dues to Rs. 3,338-4-0 making a total of Rs. 54,496. Thus the net loss of revenue to the State when land revenue and grazing fees are taken together amounts to Rs. 1,445-11-9. To this decrease is to be added the permanent cost of Patwar Establishment Rs. 2,760, and payments to Lamberdars, &c., Rs. 2,406. Total Rs. 5,166, but the actual financial result cannot be obtained till Council orders have been passed on all the Muafi files awaiting disposal.

The cost of the operations has been very small, excluding the salary and travelling expenses of officers, it has amounted to less than Rs. 10,000.

Referred to Council by the Revenue Member, with the remark that Mr. Clarke the Settlement Officer, has completed these operations in a very short time.

On the papers being circulated His Highness the Maharaja and the Vice-President have reserved their opinions for Council chamber, while Judicial Member is of opinion that the prohibition as to sale or mortgage of assami rights should not be absolute, but that sales and mortgages should be prohibited unless specially permitted by the Durbar, as cases do crop up in which special permission appears necessary, and if the Durbar keep the power in their own hands, no harm will ensue.

True copy—

SHER MOHAMMAD KHAN, SUPDT.,
Office of Revenue Member,
Jammu and Kashmir State Council.