

No. 1128-F S.

GOVERNMENT OF INDIA.

DEPARTMENT OF REVENUE AND AGRICULTURE.

(FOODSTUFFS.)

Delhi, the 26th November 1919.

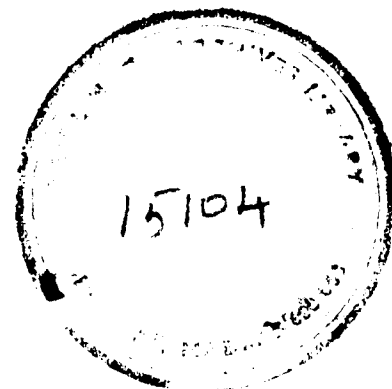
RESOLUTION.

IN the debate on the resolution moved by the Hon'ble Mr. Chanda, in the Legislative Council on the 15th September last, on the subject of high prices, the Hon'ble Mr. Mant promised that the report of the Indian Foodstuffs Commissioner would be published as soon as possible. The report has now been received and is published herewith for general information.

2. The Government of India do not think it necessary to comment at length on the report. It deals fully with the various factors which conspired to bring about a grave situation at the end of 1918, and with the measures taken to meet that situation. Some of these measures were very unusual. As pointed out in the report, the Government of India up to the date of the outbreak of the war had always refused to adopt a policy of restricting the export of foodgrains from India. The abnormal circumstances created by the war compelled them, in common with the Governments of almost all countries in the civilised world, to resort to an expedient which in ordinary times is open to strong objections. Although the extraordinarily high level of prices still prevailing in India makes it impossible for them at present to remove the embargo on export, they are fully alive to the necessity of allowing, as soon as circumstances permit, the export trade in foodgrains to resume its normal course. A beginning has been made in this direction. It has already been found possible to withdraw either wholly or partially the notifications prohibiting the export of certain foodstuffs, such as ragi, onions, potatoes and chillies. The Government of India have already announced their intentions regarding exports of wheat, gram, jowar, bajra and various other kinds of grain and pulse, and they hope shortly to be able to make a statement on the subject of their rice policy in 1920.

3. Probably no part of the Government of India's policy during the past year has aroused more criticism than the control exercised over the movements by rail of foodgrains within India. As the report shows, the system of railway priority certificates had its origin in the inability of the railways to perform their normal function of distribution. When the system was first introduced, a large measure of control was deliberately placed in the hands of Local Governments with a view to decentralisation, but it was soon found necessary to exercise central control over inter-provincial movements in order to economise the aggregate food-supplies of the country. The choice lay between two alternative policies. One course would have been to allow no restrictions on the movement between one province and another of foodgrains for which certificates had been issued by Directors of Civil Supplies. This course was considered at the end of 1918 and was rejected. At that time it was feared that India would be in serious straits for food in the middle of 1919, and the danger was, that the available supplies in surplus provinces would be rapidly exhausted by inconsiderate demands from deficit areas. It was decided, therefore, that the wiser plan was to conserve the supplies of wheat, gram and rice in India by regulating export from surplus provinces, and the primary object of appointing the Indian Foodstuffs Commissioner was that he might co-ordinate demands from the different provinces and make an equitable distribution of such supplies as were known to be available. The Government of India were constrained on more than one occasion to override the wishes of

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particular Governments, but they believe that this report, especially paragraph 53, will show that in all the circumstances of the year the course which they adopted was justified by the interests of India as a whole.

4. The other important measures taken consisted of the arrangements made for the control, in the interests of India, of the Burma rice trade, and for the importation of Australian wheat. Both these measures were, on the whole, thoroughly successful, and there can be no question as to the advantages derived by India from Mr. Gubbay's ingenious system of controlling not only the distribution of exports of Burma rice, but also the prices at which that rice was sold. The Government of India desire to express their acknowledgments of his valuable services and also of those of Mr. Innes, who successfully carried the scheme through, and whose unfailing tact and resource surmounted innumerable difficulties. The Government of India are pleased to endorse Mr. Innes' commendations of the other officers referred to in the report, and they would be glad if Local Governments would suitably acknowledge the services of Provincial Directors of Civil Supplies, whose co-operation with the Foodstuffs Commissioner has enabled the country to get through a most critical period.

ORDERED that a copy of the resolution, with a copy of the report, be forwarded to all Local Governments and Administrations, all Departments of the Government of India, all Directors of Civil Supplies, all Collectors of Customs, the Deputy Foodstuffs Commissioner (Rice), Rangoon, the Deputy Foodstuffs Commissioner (Wheat), the Shipping Controller in India, the Director General of Commercial Intelligence and the Director of Statistics, for information.

Ordered also that the resolution, as well as the report, be published in the Supplement to the Gazette of India.

R. A. MANT,

Secretary to the Government of India.

REPORT

ON THE

Operations of the Indian Foodstuffs Commissioner.

I.—Preliminary.

The policy adopted by the Government of India in the latter half of 1918 Railway congestion. in regard to food control in India was so greatly influenced by the railway position that it is necessary to begin this report by a brief reference to the difficulties in which, as the war progressed, the Indian railways increasingly became involved. These difficulties were felt at a comparatively early stage of the war, and as far back as July 1916, a Conference was held at Calcutta to consider whether the preference, which it had been found necessary to give to military traffic, should be extended to certain classes of civil traffic. In deference to commercial opinion, the proposal was dropped, but in June 1917 it was found necessary to appoint a Controller of Traffic at the Headquarters of the Government of India, and in the spring of 1918 it became necessary to reconsider the whole position. Tonnage had become scarcer with the result that much traffic, which formerly had been carried by coasting steamers, had devolved on the railways. Coal is a case in point, and the effect of the scarcity of coasting steamers is seen in the fact that at the beginning of 1918 at least forty thousand wagons, or more than one-third of the total number of broad gauge wagons available in India, were permanently employed on the transport of coal. Moreover, other preferential traffic had increased. Apart from the fact that demands of the United Kingdom and her allies for Indian wheat, hides and oilseeds were steadily growing, the enemy submarine campaign in the English Channel and the Mediterranean, which reached its climax in the spring of 1917, had made it essential that India should be used as far as possible as a base of supplies for expeditionary forces operating in Mesopotamia and other Eastern theatres of war. Thus the capacity of the railways was severely taxed to carry to the ports traffic essential for the prosecution of the war, and the point had been reached at which this preferential traffic constituted 80 per cent. of the total traffic carried. Public traffic, that is traffic necessary for the movement of foodstuffs for the civil population or essential for maintenance of the trade and industries of the country, had been reduced to 20 per cent. Moreover, while the tendency of traffic was to increase rather than to diminish, the capacity of the railways to carry that traffic had been impaired. Locomotives, rolling stock and railway material had been supplied to Mesopotamia; great difficulty was experienced in obtaining from home even the material essential for the upkeep of existing services; and the task of handling a constantly increasing volume of traffic was complicated by the fact that the supervising staff had been seriously depleted. The anxieties of the position were further increased by the possibility not only of a failure of the S. W. Monsoon in 1918 but also of a general mobilisation on the North-West Frontier which contingency recent events in Persia and Russia had brought appreciably nearer.

2. These facts were represented to the Secretary of State. It was urged that shipping for the coal traffic between Calcutta and Bombay should be provided by the Admiralty, and that the Government of India should be given some measure of control over neutral steamers plying in Indian waters. Special stress was laid on the need for the early despatch from home of railway material for which indents had already been sent or were under submission, and it was pointed out that locomotives and wagons were particularly required. But for the purposes of this report, the main point to notice is that it was the inability of the railways to perform their normal service to the country that led in April 1918 to the introduction of the railway priority certificate Introduction of Railway Priority certificate system.

Appointment of Directors of Civil Supplies.

system which was the basis of the measures subsequently adopted by the Government of India for internal food control in India. When this system was introduced there was no lack of food in India. The difficulty was to distribute it. In April 1918 the price of rice was lower than it had been for some years in Bengal and Bihar and Orissa, but in Bombay which ordinarily depends to a large extent on foodstuffs imported by rail from other provinces, the shortage of food had already become so acute that the Local Government had found it necessary to appoint a Controller of Prices and to propose that such supplies as this officer considered essential should be consigned to him and given preference on the railways. Hitherto general traffic had got through, though in reduced quantities and after much delay. But preferential traffic was increasing, and the Government were faced with the possibility that general traffic, much of which was as essential as any classed as preferential, might be shut out altogether. It was decided, therefore, that action must be taken not only to economise transport in respect of traffic already classed as preferential but also to ensure that essential traffic to which no preference had hitherto been given should be moved. A Central Priority Committee was accordingly formed on which all Departments interested were represented, and the railway priority certificate system was introduced. Goods traffic was divided for the purpose of priority into (1) urgent, (2) preferential and (3) ordinary, the first two classes again being subdivided into military and civil. Preferential traffic in classes (1) and (2) could be moved only on priority certificates issued by specially authorised officers. Ordinary traffic required no certificate but could be moved only in the absence of preferential traffic. Various officers of the Army Department and the Indian Munitions Board were empowered to issue military certificates, and in order that the requirements of civil traffic might receive due consideration, Local Governments were asked to appoint in each province a special officer to be known as the Director of Civil Supplies. The duties of this officer were defined as below:—"to consider the stocks of foodstuffs and other necessities of life in his province, to receive and examine applications from merchants and others for the movement of traffic in his province, to scrutinize reports and demands sent to him by District officers of his province, to consult freely with the local representatives of the railways in his province as to the possibility of moving particular traffic, to issue certificates, to examine and refer to the Central Priority Committee, through the Controller of Traffic, proposals for the movement of important traffic between provinces, to communicate with other Provincial Directors of Civil Supplies as to nearest points from which supplies for his own province could be obtained and to co-operate with them in preventing non-essential movements and in particular cross movements."

Central Transport
and Foodstuffs
Board.

3. This action was taken in April 1918. At the end of that month a Conference was held at Delhi by His Excellency the Viceroy to concert measures for the development and organisation of the resources of India for the purposes of the war. One of the resolutions adopted by this Conference drew attention to the hardships of the public and the dislocation of trade caused by the congestion on the railways, and besides suggesting that measures should be taken to encourage the building in India of sailing ships and river craft, recommended that provincial committees should be formed "for the purpose of advising Government departments and of encouraging the people to confine their private requirements as nearly as possible to local products in order to save unnecessary demands for railway transport, and for the further purpose of advising Directors of Civil Supplies as to the special necessities of particular districts and as to the commodities for which they think that priority should be given on the railways." By another resolution it was recommended that similar committees should be set up to advise in regard to the possibilities of developing the production of particular foodstuffs and to collate and propagate information likely to be of value to the agriculturist on the subject of manures, implements, etc., required for such development; also to recommend to Government what steps might be taken to facilitate the cultivation of waste lands. As the result of these resolutions, a Communications Board was substituted for the Central Priority Committee mentioned in the previous paragraph, and a Central Transport and Foodstuffs Board was constituted. This Board was presided over by the Hon'ble Sir

Claude Hill, K.C.S.I., C.I.E., Member of Council in charge of the Revenue and Agriculture Department of the Government of India, and was divided into two sub-committees, one dealing with animal and mechanical transport and the other with foodstuffs. The functions of the Board in the latter capacity were to collate information and advise Government as to measures calculated to develop the production of foodstuffs, to encourage local consumption of local products and generally to inculcate economy of resources in allied directions. It was recognized, of course, that the real work in connection with these subjects must be done in the provinces, but it was thought that the institution of a co-ordinating board at the headquarters of the Government of India would be a necessary means of supplementing provincial activities and of passing on from one province to another information of value for the promotion of the objects in view as well as for the purpose of offering advice and suggestions.

4. It may here be mentioned that the Government of India had already in the previous year consulted the Local Governments of the principal exporting provinces as to the measures which might suitably be adopted to stimulate the production of foodgrains, particularly wheat, in India. In some provinces, notably the Central Provinces, cotton competes with wheat, and the area under the latter crop fluctuates greatly from year to year and is dependent primarily on the character of the early monsoon and the prospects of the cotton market and partly on the late monsoon and the price which the crop is likely to fetch. In areas where cotton does not compete, however, it was generally agreed that the wheat crop responds readily to an active demand, and that the cultivators are usually alive to the state of the market. The Royal Commission on Wheat Supplies had already undertaken to buy the entire surplus of foodgrains (other than rice) grown in India and available for export, and though this undertaking had not been made known to the public for fear of a rise in prices, the Local Governments concerned had been asked to publish abroad the fact that a large demand for wheat and other foodgrains was expected. The policy approved by the Government of India also contemplated the stimulation of the production of foodgrains not only by liberal grants of *takavi* loans for the purchase of seed and bullocks, but also by the grant of temporary leases of Government waste lands on attractive terms for the growth of food crops. Other measures suitable to the particular conditions of particular provinces had also been approved. These measures comprised the supply of good seed whenever required, the grant of special irrigation facilities and the grant of rewards to village officers and zamindars who succeeded in increasing the area under wheat in their villages. Arrangements had also been made with the Agents of the Bengal Nagpur and Great Indian Peninsula Railways for the carriage of wheat for seed purposes to selected stations in the Central Provinces at specially reduced rates. The correspondence on the subject was now circulated to all Local Governments and Administrations and to all Darbars in India, and their attention was drawn to the importance of stimulating the production of foodgrains in order that each locality in India might as far as possible be self-supporting in the matter of food supplies and that cross traffic in the railways might be reduced. Numerous proposals with the same end in view were considered by the Foodstuffs Committee of the Central Board. It was suggested to the Agents of the different railways in India that unoccupied railway land should be leased out for temporary cultivation. Notes on the utilisation of farm yard manure as fuel and on the encouragement of the use of bone meal and basic slag as fertilisers, which had been prepared by the Agricultural Adviser to the Government of India, were circulated to Local Governments and Administrations for communication to provincial Advisory Committees where these had been formed. A proposal that Local Governments should be asked to consider the question of leasing out maidans, pleasure grounds and open spaces in and around cities for the cultivation of food crops was considered and rejected. The possibility of allowing zamindars to irrigate over and above the fixed percentage of areas commanded by irrigation free of charge, provided that only food crops were cultivated and that water was available, was investigated. It was found that on the Lower Chenab Canal alone the proposal, if adopted, would result in a loss amounting to some 30 per cent. of the average revenue of the previous five years, and it was decided that

the suggestion should not be pressed. Other possibilities, which it is not necessary to mention, were also explored.

The failure of the
S. W. Monsoon.

5. But it soon became evident that the activities of the Central Transport and Foodstuffs Board would necessarily be concentrated rather on the equitable distribution of available supplies than on the production of increased supplies. The Foodstuffs Sub-Committee held its first meeting on the 13th June 1918. Already the south-west monsoon had made an ominous start by appearing on the Malabar Coast on May 11th, three weeks before its normal date, and it is significant that at its first meeting the Committee found it necessary to discuss the question of restrictions on the export of foodgrains from one part of India to another. One Local Government and certain Native States had already been induced by the high level of prices prevailing in their territories and by threatened depletion of stocks to resort to the expedient of prohibiting the export of foodgrains, and almost the first action taken by the Board was to circularise Local Governments on the dangers of this policy and to call for information as to stocks in the different provinces. Unfortunately the progress of the monsoon did not belie its bad start. The Arabian Sea monsoon gave widespread and unusually heavy rain over nearly the whole of the Peninsula in May, but in the beginning of June its activity declined rapidly, and except for short intervals of comparative improvement, it remained very weak up to the end of July. The Bay current arrived in Bengal two weeks earlier than usual; it was decidedly strong in June, but appreciably weaker than usual in July. In July, indeed, the failure of the rains was unprecedented. Assam had 63 per cent. more rain than usual, in Bengal the total precipitation was nearly normal, and in Burma the rainfall was only 22 per cent. in defect. But no other division of India had more than half of its usual supply, and most provinces had considerably less. The extent of the failure of the rains in June and July 1918 is exhibited in the following table:—

Rainfall in June and July 1918.

Division.	Actual 1918.	Percentage departure from normal.
Burma	40.00	-12
Assam	48.4	+43
Bengal	42.9	+31
Bihar and Orissa	19.7	-12
United Provinces	9.1	-46
Punjab	2.2	-79
North-West Frontier Province	1.1	-52
Sind	0	-100
Rajputana	2.2	-74
Bombay	9.8	-60
Central India	8.2	-51
Central Provinces	17.1	-19
Hyderabad	5.7	-55
Mysore	2.2	-66
Madras	7.4	-49
Mean of India	15.1	-25

6. The situation was carefully watched by the Government of India. Already currency difficulties had necessitated a reduction in the programme of purchases of wheat for the Royal Commission on Wheat Supplies, and on the 18th July the Government of India reported to the Secretary of State that the delay in the Arabian Sea monsoon was giving cause for anxiety and suggested that in order to give the monsoon time definitely to declare its character, purchases in the Punjab should be entirely stopped for one month.

The Nagpur
Conference.

The Royal Commission agreed to this proposal, but urged that when the position was reviewed at the end of August, the vital importance of economising tonnage by provisioning the Mediterranean countries from India should not be lost sight of. The Government of India's next step was to summon a Conference of Directors of Civil Supplies to consider the new position with regard to the general food supplies of the country caused by the threatened failure of the rains. The Conference met at Nagpur on the 18th August. It was presided over by the Hon'ble Sir Claude Hill and was attended not only by the Director of Civil Supplies in the different provinces, but also by a member of the Railway Board, the Controller of Traffic, and the Agents of the Great Indian Peninsula and Bengal-Nagpur Railways. Much useful work was done in the direction of introducing order and method into the system of railway priority certificates, and of defining the powers of Directors of Civil Supplies in relation to one another and the Railway Companies. In particular a decision was arrived at on the vexed question whether a Director of Civil Supplies was at liberty to prevent exports of foodgrains from his province by the expedient of withholding priority certificates. It was agreed that this power should not be vested in Directors, and that if such action were considered necessary, the orders of the Government of India should be taken. But the Directors of Civil Supplies had not been long enough in existence to be able to furnish accurate information as to the position of their provinces in regard to supplies of foodstuffs, and it was decided that detailed estimates of stocks and requirements should be furnished to the Central Transport and Foodstuffs Board not later than the 15th September.

7. After this Conference events moved rapidly. The prospects of the monsoon, which had shown a slight improvement at the time of the Nagpur Conference, again deteriorated, and the September rains proved a failure. By the end of that month it became certain not only that the *kharif* crops would be a failure over a great part of India, but also that the *rabi* sowings would seriously be restricted. Prices not only of wheat but of other foodgrains began to rise rapidly, and food riots occurred in the Madras Presidency and were threatened elsewhere. It was now obvious that in addition to the difficulty of distribution, there was the fear of an actual shortage of supplies. The estimates of stocks and requirements furnished to the Central Transport and Foodstuffs Board in accordance with the Resolution passed at the Nagpur Conference disclosed a net deficit, and the Board reported to the Government of India that the outlook was grave. Accordingly, in spite of the fact that the war was still in progress, it was decided in the beginning of October, in consultation with the Secretary of State, to stop immediately purchases of wheat and "feeds" for export overseas to destinations other than Mesopotamia, though in view of the serious embarrassment caused by the failure of Indian supplies, no objection was raised to the shipment of quantities already purchased by the Royal Commission. The Government of India also decided at the beginning of October that effective measures must be taken to ensure the equitable distribution of supplies in India. For this purpose they resolved to set up, in lieu of the Central Transport and Foodstuffs Board which was purely an advisory body, a single executive authority working under themselves and to be designated the Indian Foodstuffs Commissioner. Mr. M. M. S. Gubbay, C.S.I., C.I.E., I.C.S., was selected for the new appointment and assumed charge on November 1st.

The appointment
of an Indian
Foodstuffs
Commissioner.

II.—The Foodstuffs Problem.

8. I have traced briefly the sequence of the events which led to the appointment of an Indian Foodstuffs Commissioner, and I now propose to examine the situation in India in respect of the supply of foodstuffs (a) as it existed at the time of Mr. Gubbay's appointment and (b) as it developed with the harvesting of the *rabi* crops of 1919. The essentials of the problem were known when Mr. Gubbay became Indian Foodstuffs Commissioner, but it is now possible to fill in the details. On the 15th October a second Conference of Directors of Civil Supplies was held at Delhi. This Conference gave Mr. Gubbay an opportunity of meeting the officers with whom he would have to work, but it was convened mainly for the purpose of arriving at a correct

The Delhi
Conference.

appreciation of the difficulties which confronted the Government of India and Local Governments and of deciding what was the most hopeful solution of those difficulties. The reports of the Directors were not encouraging. They indicated that surplus stocks of rice were available in Bengal and Burma and that supplies of wheat and gram were obtainable from the United Provinces and the Punjab, but when the balance was struck, it was found that the estimated requirements of deficit areas during the three months ending January 1919, exceeded the supplies of wheat, gram, rice and other foodgrains reported to be available for export from more fortunate provinces by 229,460 tons. There was some reason to believe that the prospect, though it was sufficiently gloomy, was not quite so black as it had been painted, and it may here be remarked that all efforts to obtain accurate estimates of stocks of foodgrains in this country during the past year have failed. A more serious attempt was made in December. The co-operation of district officers was secured, and a formal census of stocks of foodgrains was held throughout the country. No pains were spared to make the returns as accurate as possible, but when they were received, they were recognised by common consent to be of very little value. The proceedings of the Delhi Conference were useful as indicating the areas from which supplies of foodgrains could be drawn and as containing an appreciation by those best qualified to judge of the position in India as it was when Mr. Gubbay was appointed, but I propose to examine that position in the light of more general considerations.

Stocks at the end of 1918.

9. Fortunately, the main harvests of the two previous years had been particularly good. The rice and wheat crops of 1916-17 and 1917-18, these being by far the two most important food crops in India, were almost the biggest crops on record. The same remark is substantially true of the gram and barley crops of those two years, while the maize crops were above the average. The bajra crop of 1916-17 was exceptionally good and the jowar crop normal, but both these crops failed over large areas in 1917-18 and the yields were poor. But taking the harvests of 1916-17 and 1917-18 as a whole, it may be said with confidence that India's period of stress in 1918-19 succeeded two exceptionally good years. It is commonly believed, however, that during the war India had been denuded of grain and pulse in order to feed the United Kingdom and her Allies as well as the Expeditionary forces operating in Eastern theatres of the war. The exports of wheat, gram, maize, barley and the like in 1917-18, which were mostly on the account of the Royal Commission on wheat supplies, were heavy, and particular areas may have suffered in this way, but export statistics over a long series of years do not support the theory of denudation as applied to India as a whole. The relevant statistics are given in Appendix I to this report, and in Appendix II I have compared the total yield of various important foodgrains and pulses, as recorded in the publication of the Department of Statistics entitled *Estimates of the area and yield of the principal crops in India 1917-18* with the quantities of these foodgrains and pulses exported. It will be seen that the results of this comparison do not support the view that stocks were particularly low in India at the end of 1918 owing to heavy exports. It is quite probable that owing to the bad harvests of 1917-18 stocks of bajra and jowar were short, but unless indeed increasing prosperity due to the war had resulted in a general rise in the standard of living and an increase in consumption, such evidence as is available points to the conclusion that stocks of foodstuffs in India must have been comparatively large at the end of 1918. Had not this been the case, indeed, it is difficult to see how India could have come through 1919 as well as she did.

Margin of production over consumption in India.

10. Unfortunately, for the reasons already explained, it is impossible to give any quantitative estimate of these stocks, nor can any comparison between production and consumption in India be usefully undertaken. Apart from the difficulty of fixing a standard of consumption, which could reasonably be applied to a population of more than 300 millions, it is useless even to attempt the comparison, since there are very large areas in India under crops classed in the Agricultural Statistics under the head "other foodgrains and pulses" for which no estimates of outturn are framed. Moreover, though constant attention is being paid to the improvement of our agricultural statistics, it must be admitted that they are still defective. In some provinces, particularly

provinces where there are large tracts of country under permanent settlement, even the statistics of the area under cultivation are unreliable, while the estimates of the out-turn of crops are always rather doubtful quantities. In my opinion, all that can usefully be said on the subject of the margin of production over consumption in India is what follows. Of the total amount of food produced in the country, part goes into current consumption and part is held in stock for purposes of seed and as a reserve. These two parts between them constitute internal requirements, and the surplus that remains is exported. In times of scarcity the country falls back on its reserve stocks and on the safety margin afforded by the surplus ordinarily exported. There is no means of ascertaining accurately the amount of reserve stock held in the country, but the safety margin afforded by the surplus ordinarily exported is not large. The figures are given below. In working them out Burma has been excluded. That is to say, exports to and imports from Burma have been added to exports from and imports into India proper.

Net exports of grain and pulse from India.

Year.	Quantity (000's of tons.)
1909-10	783
1910-11	1,571
1911-12	3,018
1912-13	3,387
1913-14	1,483
1914-15	133
1915-16	151
1916-17	661
1917-18	2,314
1918 up to October	1,091

It will be noted that the above table does not support the theory that India was drained of foodstuffs during the war, but the main interest of the figures lies in the fact that in the ten years ending 1918 the net export of grains and pulse from India proper averaged less than $1\frac{1}{2}$ million tons per annum. The amount is small, compared with the total production in the country, and moreover the level of prices in India does not ordinarily allow deficiencies in local production to be made up by imports from outside countries other than Burma.

11. We may now consider the extent of the calamity which overtook India owing to the failure of the crops in 1918-19. This crop failure, if less intense than had been experienced previously in particular areas, was unprecedented in the extent of country affected. I have already referred to the unsatisfactory character of the south-west monsoon, and it may be noted that taking the average precipitation over the whole of the plains of India, the rainfall in the monsoon period was 6.5 inches or 19 per cent. in defect. The records of the Meteorological Department contain only two instances of similar failures of the monsoon. One was in the disastrous year 1899, when the deficiency was 6.5 inches; the other was in the even more disastrous year 1877, when the deficiency was 7.9 inches. The Bay current was stronger than that from the Arabian Sea, but it died away early in September, and there was no part of India which did not suffer to a greater or less extent. In Burma the final estimate of the paddy crop showed a defect of 16 per cent. compared with the out-turn of the previous year. Both in Bengal and Bihar and Orissa excessive rainfall in June, deficient rain in July, and the entire cessation of the rains in the middle of September seriously affected the out-turn of the *bhadai* or autumn crops and gravely prejudiced the prospects of the important winter rice crops. The outturn of this crop was estimated at only 77 per cent. of the normal in Bengal and at only 60 per cent. in Bihar and Orissa. Even in Assam both the autumn and winter rice crops were exceptionally poor, floods being the cause of the damage in the one case and drought in the other. The failure of the Arabian Sea monsoon was more complete than that of the Bay current and other provinces fared even worse. The season in the United Provinces was one of the worst on record. The unirrigated *kharif* crops failed over

The crop failure 1918-19.

large areas, and *rabi* sowings were much restricted. In the Punjab, *kharif* sowings were 27 per cent, below normal, and the percentage of crop failure was 41, double the normal figure. *Rabi* sowings were late and were much restricted. In the Central Provinces, where, apart from deficient rainfall, influenza was particularly severe, all field work being brought to an entire standstill just when labour was required for the sowing of the *rabi* crops, the yield of the *kharif* and *rabi* crops taken together was little more than half the normal. In all these three provinces, however, timely rain in January resulted in a better *rabi* than at one time had been expected, and heavy rain in November assisted to relieve the situation in Madras. But the rain came too late to save the *kharif* crops in Madras, and throughout the Peninsula the crops were bad. The Bombay Presidency fared particularly badly. The harvests were poor everywhere and in some areas failed altogether, and a widespread fodder famine aggravated an already serious situation.

Deficiency of
production.

12. Normally in India crop failures are only partial, and shortages in some parts of the country are made up for by bountiful harvests in other parts. But in 1918-19 there was no province which did not suffer from a failure of the monsoon which was either partial or complete, and the terrible influenza epidemic of the autumn months of 1918 was another calamity which tended still further to restrict production. The effect of these factors is exhibited statistically in the appended table in which I have compared the estimated yield of the principal crops in 1918-19 with the corresponding figures for 1917-18 and with the average yield of the five years ending 1916-17.

Out-turn of some of the principal crops in 000's of tons.

Crop.	1913-14 to 1916-17 (average.)	1917-18.	1918-19.	EXCESS + OR DEFICIENCY—	
				Between column 4 and column 2.	Between column 4 and column 3.
1	2	3	4	5	6
Rice	30,913	36,236	23,672	-7,091	-12,130
Wheat	9,333	9,922	7,502	-1,831	-2,420
Barley	3,059	3,828	2,781	-278	-547
Jowar	5,090	4,000(1)	3,459(2)	-1,631	-541
Bajra	3,282	2,000(1)	1,331	-1,901	-619
Maize	2,253	2,317	1,770	-483	-547
Gram	3,355	4,400	1,928(2)	-1,427	-2,472
	57,285	62,203	42,493	-14,792	-19,276

(1) Madras out-turn estimated roughly by me.

(2) Central Provinces out-turn estimated roughly by me.

The real nature of
the problem.

13. The above table shows that in British provinces alone and in respect only of certain principal crops, the deficiency of production in 1918-19 amounted to more than 14 million tons compared with the average of the four years ending 1916-17, and more than 19 million tons compared with the year 1917-18. Attention in the press and in the Legislative Councils has been concentrated recently mainly on the question of prices. I will deal with this question later. But it will now be clear why at the end of 1918, the Government of India and Mr. Gubbay regarded the question of prices as one of secondary importance. The problem before them obviously was how to conserve, supplement and distribute to the best advantage supplies of food which were feared to be inadequate for the needs of the country.

III.—The policy adopted.

14. The measures adopted may conveniently be considered under the above three heads. The conservation of resources covers the Government of India's export policy and under this head I will deal not only with the ring fence

drawn round India by the embargo on exports of foodstuffs, but also with the arrangements made to ration countries which ordinarily draw their supplies from India. The second head involves the consideration not only of the arrangements made for the control of the Burma rice trade and for the importation of Australian wheat, but also of the control exercised over shipping in Indian waters and the measures taken to reduce the rates of freight on rice imported from Burma. Under the head of distribution falls the consideration of the whole subject of internal control in India.

(1) EXPORT POLICY.

15. The policy of prohibiting exports of foodstuffs in times of scarcity has frequently been examined by the Government of India, and up to the outbreak of the war, the conclusion arrived at had always been the same. Nothing could justify recourse to this expedient, it was stated in 1873, "unless it were a certainty or a reasonable probability that exports of food had so exhausted the resources of India as to render them incapable of affording supplies, which may be required for affected districts." This principle was re-affirmed by the Hon'ble Mr. (now Sir J. O.) Miller in the Legislative Council in 1908, but the war had not been long in progress before the rapid rise in the price of wheat in the Indian markets compelled the Government of India to abandon their established policy, and since the beginning of 1915 some form of embargo has always existed on the export of wheat and wheat flour. When Mr. Gubbay joined his appointment as Indian Foodstuffs Commissioner in November 1918, the orders in force prohibited the export of wheat and wheat flour except under license, and no further action in this direction was necessary. But the question at once had to be examined whether supplies of wheat could be made available for the United Kingdom. At the beginning of 1918, in response to an earnest appeal from the Royal Commission on Wheat Supplies, a very large programme of wheat purchases in 1918-19 had provisionally been arranged. Fortunately, as it turned out afterwards, currency difficulties had necessitated a reduction of this programme in June 1918, and as I have already explained, purchases had been temporarily suspended in July at the instance of the Government of India, and except for Mesopotamia, had been stopped altogether in the beginning of October. The Secretary of State, however, in agreeing to this measure, had asked, in view of the extra strain on tonnage caused by the failure of Indian supplies, that the possibility of resuming purchases on the Royal Commission's account might be examined before the 15th December. The signing of the Armistice on the 11th November fortunately made the question of supplies from India less important, and on December 17th the Secretary of State was informed that in view of the necessity of conserving stocks to meet the Indian demand, it was quite impossible for the Government of India to agree to the resumption of purchases by the Royal Commission for export overseas. The position as regards rice was very similar. As I shall explain later, the export of rice on private account had already been prohibited, and the only question requiring immediate settlement was how far the Government of India could meet the Royal Commission's requirements for 1919 which had been estimated at one million tons. After a careful examination of the position in Burma, the Government of India offered to supply the United Kingdom with 300,000 tons of rice in 1919, but when the Royal Commission resigned their claim to this amount in favour of the colonies, the Government of India decided to retain the rice for India. The position in regard to other foodgrains was then examined, and in the beginning of February 1919 notifications were issued prohibiting the export except under license of bajra, jowar, barley, gram, maize and pulse. Chillies, onions, potatoes and ragi were also included in the notification on various dates.

16. It was, of course, not possible to shut down exports of foodgrains from India altogether. India supplies a considerable proportion of the world's requirements of rice, and there are many rice-eating countries which are almost entirely dependent on India for their food supplies. Many of these countries, moreover, besides being included in the British Empire, contain large resident Indian populations. Ceylon, the Straits Settlements, Mauritius and South

Restriction of
exports.

The Rationing
Scheme.

Africa are cases in point. For political reasons, moreover, it was important to supply certain countries, and the resumption of the pilgrim traffic made it imperative to send foodstuffs to Jeddah. One of the first duties, therefore, taken up by Mr. Gubbay and Mr. Hullah (who had been appointed Deputy Foodstuffs Commissioner) was the devising of a rationing scheme. Certain countries, although large importers of rice from India, were eliminated altogether as having no special claim on India, and it was announced on the 17th December that it would not be possible to grant licenses for shipment to Australia, Canada, the Dutch East Indies, China and various other countries. 390,000 tons were then earmarked for the Royal Commission (it has already been mentioned that this quantity was subsequently reserved for India), and a preliminary estimate was made of India's probable requirements. The balance remaining for export was then divided up between countries regarded as having a special claim on India, and was distributed among the different Indian ports. Exports from Madras and Karachi were closed down altogether, and the bulk of the exports were made from Burma. Details of the rice rationing scheme as finally settled by Mr. Gubbay are given in appendix III to this report. In most cases the rations allowed were much below the quantities of rice normally imported by the countries concerned, and in order to give them time to exploit other sources of supplies, they were allowed to overdraw in the first quarter of 1919. The effect of the scheme was also obscured at first by the fact that at the end of 1918 the Royal Commission held large stocks of old crop rice in Burma for which it had not been able to provide shipping. Shipments of these stocks still continue, and this fact explains the exports to Egypt, Sweden and some other countries which appear in the sea-borne trade returns, and which have occasioned some comment in the press. I do not propose to enlarge on this matter. It is sufficient to remark that the rice was old crop rice bought at a price much above the controlled price for the 1919 crop and therefore useless to India, and that much of it had been bought for allied or neutral countries under agreements effected during the war and therefore could not have been resigned by the Royal Commission even if the Government of India had pressed this course. Moreover, it was shipped at a time when there was far more of the 1919 crop in the Burma ports than we could arrange to lift to India. I should explain that it was not possible absolutely to adhere to Mr. Gubbay's rationing scheme. Most of the modifications made were unimportant and consisted mainly of transfers of allotments from one port to another. But the allotment made to Ceylon had largely to be increased. This island, which contains more than 4 million people including a large resident Tamil population, has only a small area under food crops, and is almost entirely dependent on India for its food supplies. For reasons into which it is unnecessary to enter but which were accepted by the Government of India as satisfactory, the Government of Ceylon were not able to make up the deficiency between their ration and their normal supplies from India by imports from the only two free markets, Siam and Saigon, and the Government of India were compelled to assume responsibility for providing the island's minimum requirements, namely 28,000 tons of rice a month. Had they not done so, the island would have starved, the tea and rubber industries would have been ruined, and there would have been a large influx of starving Tamil coolies back into Madras. The task of supplementing the sanctioned allotment was not easy. But as the situation in India improved with the harvesting of the *kharif* crops, licensed importers of Burma rice in various ports found themselves with stocks of Burma rice for which there was no demand and which could not be sold except at a loss. These surplus stocks were utilised in feeding Ceylon, and it was also found possible to make additional allotments from Burma. In the end we were able to make available for Ceylon during 1919 a large proportion of her normal supplies of Indian rice amounting to some 315,000 tons. A small additional allotment was also sanctioned for the Straits Settlements, but much of the Foodstuffs Commissioner's time was taken up in rejecting appeals from countries east of Suez for supplies of rice. Similar rationing schemes for wheat, wheat flour and other grain and pulse were drawn up in respect of exports from Bombay, Karachi and Calcutta, but the amounts involved were small, and it is not necessary to go further into detail.

17. A statement is appended which exhibits statistically the effect of these measures. Effect of restrictions.

Comparative Statement of exports.

(Tons).

Grain.	Average nine years ending 1917-18.	1st six months 1918-19.	2nd six months 1918-19.	1st six months 1919-20.	Total columns 4 and 5.	Difference between columns 6 and 2.
1	2	3	4	5	6	7
Rice	2,044,011	1,253,674	763,647	228,012	991,659	1,052,352
Wheat	1,122,537	445,866	30,237	4,297	34,534	1,088,003
Jowar and Bajra	44,937	4,165	1,231	2,278	3,509	41,428
Barley	210,788	170,647	55,705	342	56,047	154,741
Gram	120,143	223,653	58,539	2,561	61,100	59,043
Total grain, pulse and flour	3,884,757	2,243,487	1,003,823	312,144	1,315,967	2,518,790
Total grain, pulse and flour excluding Burma rice.	2,299,703	1,225,300	379,943	132,385	512,328	1,787,375

It will be seen that if exports of Burma rice be excluded, exports of grain, pulse and flour from India proper were reduced in the year ending 30th September 1919 to slightly more than 500,000 tons or rather more than one-fifth of the annual normal exports of just under 2,300,000 tons. A saving was affected to India in this way of about 1,800,000 tons of food grains.

(2) IMPORT POLICY.

(a) *Burma rice control.*

18. Before describing the measures adopted for the control of the Burma rice trade in 1919, it may be of interest to give a brief account of the inception and extent of the operations of the Royal Commission on Wheat Supplies in respect of Burma rice in 1918, especially as those operations have been the subject of considerable misapprehension in the press. In September 1917 it was evident from reports in the newspapers as well as from representations received by the Government of India, that the position of the Burma rice trade was becoming critical, and the Government of Burma were asked to report what the position actually was. In reply they stated that owing partly to the shortage of shipping and partly to the curtailment of markets, a large proportion of the 1916 crop was still on the local market, that the price of paddy had dropped to R78 per 100 baskets, a price which had not been touched at that season of the year in any of the previous 17 years, that if no relief could be arranged the price would probably drop to R60 when the new crop came in, and that the cultivators would be involved in very heavy loss. Urgent representations were at once made to the Secretary of State that additional tonnage should be provided for the Burma rice trade, and the suggestion was also made that the United Kingdom and her allies might welcome supplies of Burma rice. The Secretary of State, in consultation with the Shipping Controller, was able at once to relieve to some extent the shipping position, but in December 1917 more important developments ensued. The Secretary of State cabled out that it was proposed to supply the allied countries with 100,000 tons of Burma rice monthly in 1918, and in view of the immense quantities involved, he asked that local arrangements might be made which would ensure continuous supplies at a reasonable price. These arrangements were made by the Local Government in consultation with the trade. The export of rice to all destinations was prohibited except under license, and purchases on behalf of the Royal Commission were entrusted to a Rice Commissioner who in distributing the contracts among the millers was assisted by an Advisory Committee. The Royal Commission naturally provided the

Operations of the
Royal
Commission on
Wheat Supplies in
1918.

tonnage for the rice purchased on its account, and in this way the situation in Burma was saved. The amount of rice purchased for the Royal Commission in 1918 was 788,632 tons, and the price paid amounted approximately to £6,020,000.

Mr. Gubbay's
scheme of control.

19. The Royal Commission originally agreed to pay for the rice supplied on its order on the basis of R105 per 100 baskets of first quality Europe paddy delivered at Rangoon or Bassein. This price was considerably higher than the Royal Commission had been paying, but they agreed to it on the representation of the Government of Burma that it was the average price of paddy in Rangoon in the three months January, February and March in the 20 years preceding the war, and that with due regard to the interests of the Burma cultivators, the price could not be fixed at a lower figure. As a matter of fact, the price was not fixed under the Defence of India Rules or otherwise made effective. Wide publicity was given to the fact that the Royal Commission had agreed to pay for the rice it required on the basis of R105 per 100 baskets of paddy, and it was hoped and believed that the cultivators would stand out for this figure. But the 1917-18 crop was an exceptionally good one, and paddy poured down into the ports in such quantities that the millers, especially as the supplies of tonnage were irregular, were able to obtain their requirements at a price much below Rs. 105, and it became necessary to revise the terms of the contracts between the millers and the Royal Commission. The price of paddy remained low in the first six months of 1918. It averaged R89 in May, R93 in June and R98 in July, but when it became apparent that the monsoon in India threatened to be a failure, prices rose rapidly. The average price in August was R112, in September it rose to R150 and in October to R162. When Mr. Gubbay arrived in Rangoon in the middle of November the price had touched R180, a figure never before reached at this season of the year. The market was in a very sensitive mood, and prices were rising in response to every demand from India. This sensitiveness was due to the fact that it was certain that India must require large supplies, and was accentuated by competitive buying in Burma by merchants from Bombay, Madras and Mysore. It was also thought that need for rice in India was so urgent that Mr. Gubbay must take over the balance remaining of the 1918 crop (which was estimated at between 100,000 and 150,000 tons) at any price which those who held that balance might chose to fix in combination with one another. Mr. Gubbay, however, destroyed these hopes by stating that he had no intention of taking over the balance of the 1918 crop, and he contented himself with devising in consultation with the big millers, the small millers and the Government of Burma, a scheme for the control of the 1919 crop. The main features of his scheme as announced in a press communiqué issued on the 25th November were as follows:—

- (1) Licenses would be required for export to any destination.
- (2) The quantities which might be shipped to any destination would be determined by the Government of India;
- (3) Licenses to ship rice of the 1919 crop to authorised destinations within the quantities allowed by the Government of India would be granted only on satisfactory evidence being furnished that the price paid or to be paid for the rice which it was intended to ship was not in excess of the controlled basic price, and
- (4) The maximum buying price for the Burma rice crop of 1919 was fixed at R335 *ex* hopper for the quality known as big mills specials.

It may be explained that the prices of other qualities of rice in the province bear a definite relation to the price of big mill specials, and that the price of rice in the Burma market bears a definite relation to the price of paddy. The rice price is made up of (1) the price of paddy, (2) the milling hire and (3) the cash out-turn *i.e.*, the quantities of white rice and *kuddis* or broken obtained in the course of milling from a given quantity of paddy. (2) is a fixed charge and (3) depends on the milling quality of the paddy, but without going further into a very technical matter, it may be said that price of R335 fixed by Mr. Gubbay for 100 baskets (each of 75 lbs.) of big mills specials represented

a price of R124 for 100 baskets (each of 46 lbs.) of paddy. This price was undoubtedly fair and even liberal. In the 10 years preceding the war the medium average price for paddy in the first quarter of the year had been R116; in the three years ending 1917 the average had been R105; in 1918 the average had been R97, and the settlements in Burma assume a price of R105. Mr. Gubbay in fixing the price of big mills specials at R335 added about 20 per cent. to the price assumed by settlement officers, and in doing so he was guided by the considerations (1) that the paddy cultivator in Burma naturally expected that the necessities of the world for food would bring him compensation for the lean years which he had experienced since 1914, and (2) that his price must be sufficiently liberal to make it certain that paddy would come down freely. Mr. Gubbay's system of control, as already explained, applied only to the 1919 crop which would not come on to the market till January, but the issue of his press communiqué on 25th November 1918 led to an immediate fall in the price of old crop paddy. In the first week of December the price of paddy had dropped to R140 and during the course of the month it fell to R110, a figure well below the maximum permissible under the control scheme.

20. A number of officers were engaged in working the control. The Foodstuffs Commissioner, with the approval of the Government of India, fixed the quantities which might be licensed monthly for import into the different ports of India. The Agent to the Shipping Controller (or, as he afterwards became, the Shipping Controller in India) was responsible for providing the tonnage as far as it was available. The Directors of Civil Supplies in Bombay, Madras and Calcutta, issued licenses for import up to the quantities allotted by the Foodstuffs Commissioner, and the Deputy Foodstuffs Commissioner (Rice) under which name Mr. Stevens, the Rice Commissioner, had been transferred to Mr. Gubbay's staff, supervised the working of the scheme in Burma. He licensed shipments and satisfied himself that the maximum buying price had not been exceeded by the shippers. The control came into force with the arrival of the new crop in January, and for the first three months of the year it worked, by common consent, remarkably well. Paddy poured down into the ports in normal quantities, and while shippers experienced no difficulty in obtaining all the rice they required at or below the control price, the cultivators obtained a reasonably good price for their paddy, as will be seen from the average prices for January, February and March noted in the margin. In fact when Mr. Gubbay visited Rangoon in March, the only complaint made to him in respect of the working of the control was that sufficient tonnage had not been provided.

	R
January	119
February	122
March	128

21. Even in March, however, the price of paddy had risen slightly above the parity of the maximum controlled price for rice, and in April it became evident that the control was breaking down. There was sufficient rice already licensed and contracted for to fill our steamers for some time to come, but Mr. Stevens reported that unless early action were taken the time would soon arrive when it would be difficult to find rice for the shipping provided. Accordingly at the end of April I, who had in the meantime succeeded Mr. Gubbay as Indian Foodstuffs Commissioner, proceeded to Rangoon to investigate matters on the spot. The general position when I arrived was that the millers had stopped selling rice of the controlled qualities, and that the price of paddy had advanced far beyond the parity of the controlled rice price. As already noted, Mr. Gubbay had fixed his maximum price for rice on the basis of R124 for 100 baskets of paddy. At the time of my arrival transactions in paddy had been reported at R150 and R155, and one transaction at R165. It was evident therefore that the control scheme had temporarily broken down. It was freely said in the bazaar that the price control no longer existed, and it was an open secret that certain shippers were evading the control. The most common method of evasion was for the shippers to pay, in addition to the nominal control price, secret bonuses for the rice they bought.

22. My enquiries showed that this temporary breakdown of the price control was due to a variety of reasons. In the first place, the rule that rice

might not be exported unless Mr. Stevens was satisfied that the transaction was not effected at a price above the control price was not, and could never be, in itself a really effective safeguard against dishonesty. Up to the end of March, it worked well enough, but merely because owing to the arrival of the new crop and the glut of paddy in the ports the market price of rice was below the control figure. As soon as the point arrived when rice could not be bought at the control price, the rule ceased to be effective. It was not possible for Mr. Stevens to check every shipping bill, and even in cases where he was dissatisfied and called for further information, it was quite easy for a dishonest shipper to put in a false bill. The next point, which impressed itself on me, was that no system of control in Burma could by itself be effective. The first condition of success in Burma was that price control in India should be real, and there was little doubt that laxity of control in India had contributed to the temporary breakdown of control in Burma. His Honour the Lieutenant Governor laid great stress on this point, and it was emphasised by everyone whom I consulted in Burma. It was obvious that if the licensees could evade the price control in India, and if they could make large illicit profits on the rice which they imported from Burma, they would find means of evading the control in Burma. The first conclusion I came to, therefore, was that control in India must be tightened up, otherwise whatever measures were taken in Burma must prove ineffective. This point was important for other reasons on which His Honour the Lieutenant-Governor laid emphasis. If we had not restricted the export of rice from Burma, prices would have been much higher than those fixed by the control. It might reasonably be argued that the necessities of India justified control in Burma, but obviously there was no justification for limiting the profits of the miller, the merchant and cultivator in Burma unless steps were taken to ensure that the consumer in India, and not the profiteer, got the benefit of the artificial lowering of the price. In addition to laxity of control in India, faulty methods of issuing licenses had also enhanced the difficulties of the position. Originally it was the intention that the Director of Civil Supplies of importing provinces should work as far as possible through the ordinary trade channels, and should issue licenses to established shippers. Moreover, in some provinces there was at first a reluctance on the part of merchants to take the risk of importing rice, and the Director of Civil Supplies welcomed any one who came forward to take up licenses. The result was that in some provinces the mistake had been made of issuing too many licenses and of issuing licenses for too small quantities. These licensees had competed against one another for rice in Burma, and, moreover, the greater the number of licensees, the greater the difficulties of control. Further, in the original control scheme the price of certain qualities of rice, such as Europe No. 1, boiled rice, and the lower grades of brokens, had been left uncontrolled. Fancy prices had been obtained for Europe No. 1 and boiled rice, and this fact had contributed to the rise in the price of paddy. The omission to control the lower grades of brokens had also opened the door to fraud. All these reasons had contributed to the temporary breakdown of the price control, but all whom I consulted were agreed that the main cause of the stagnation in the rice market was that the first rush of paddy had spent itself, and it is noteworthy that Mr. Gubbay in introducing the control scheme had clearly indicated his opinion that some raising of the control price would be necessary in April or May. At the time of my arrival in Burma, the cultivator was scarcely in the picture. The balance of the paddy had passed into the hands of the stock-holders. The exportable surplus was even smaller than had been supposed, and the Government of Burma had just issued a communiqué reducing its estimate of this surplus from 2,250,000 tons cargo rice to 2,110,000 tons. The stock-holders knew not only that the crop was short in Burma and that the exportable surplus was estimated officially to be nearly three-quarters of a million tons less than in the previous year, but also that famine conditions prevailed in India, and that India was in urgent need of large supplies of Burma rice. It was also believed that if the monsoon opened well in India, conditions would change and that the control would be relaxed in July. The stock-holders thought that then the Burma market would be opened again to the world generally, and that prices would rise to the extraordinary levels prevailing in Siam and Saigon. It was reported

that they could afford to hold till the end of the year, if necessary, or even longer, and it was obvious that they were in a strong position.

22. If I had been in a position to put up a bluff, the best course would undoubtedly have been to reduce the control price and divert the rice steamers for a month or two. This course was impossible for obvious reasons. In the first place, if I had diverted the rice steamers for a month or two it might have been impossible to collect the fleet again. Secondly, India was in urgent need of rice. I came to the conclusion, therefore, after consulting not only the Local Government but also the big millers, the small millers, and the Rice Merchants' Association, that there was only one way of inducing a free flow of paddy, and that was to raise the control price. Paddy had already been sold at R155 for 100 baskets, and I decided that no smaller price than R150 would have the effect of bringing out stocks. All whom I consulted were also agreed that it was essential that if the rice price was raised, the price of paddy should be fixed under the Defence of India Rules, and that it should be made clear to the stock-holders that if they continued unreasonably to withhold their stocks they would run the risk of having their stocks commandeered, and that if they sold above the maximum price, they would be liable to go to jail. Before, however, I could ask the Local Government to take action in this direction, it was necessary for me to satisfy them that I was offering a reasonable price to the stock-holders. It must be remembered that these stock-holders are an essential link in the chain of the paddy trade, and that it has been the policy of the Local Government in past years to encourage the ryot to hold up his stores of paddy. An examination of the statistics of paddy prices between May and December showed that in the previous ten years the average price in these months had been as high as R172 in 1912, and R155 in 1911. In 1915 it was R141. In no other year had it been more than R128, and in five years out of the ten it was less than R120. Judging by these figures, no reasonable cause of complaint would have been given if the paddy basis had been fixed at R145 or even R140. But the main thing was to tempt out stocks of paddy. It was doubtful whether commandeering on a large scale was possible, and in any case I regarded commandeering as a weapon to be held in reserve rather than as an ordinary means of bringing out paddy. For the purpose of bringing out the paddy, it was necessary to rely mainly on an attractive price. I therefore recommended to His Honour the Lieutenant-Governor that the rice price should be increased so as to enable millers to pay up to R150. His Honour, after examining the price statistics submitted to him, accepted this price as a reasonable price in all the circumstances of the year. Accordingly on the 8th May, with his approval and that of the Government of India, I issued a press communiqué. I raised the maximum control price of rice in Burma from R335 per 100 baskets of big mills specials to R385, this being the equivalent of R150 per 100 baskets of paddy. The maximum prices of other qualities of rice were revised in the same proportion, and practically every quality of rice known in the trade in Burma was brought under control. It was announced that the Government of India had issued a notification under rule 11-J. of the Defence of India Rules declaring that it was necessary to control the supply of rice in Burma and that in the exercise of the powers conferred on them by this notification the Government of Burma intended to prescribe that the price at which paddy might be sold in Burma should not exceed R150 per 100 baskets delivered at the mills in the various Burma ports. It was also stated that there was no foundation for the belief that the rice control was likely to be relaxed in July or August, and that, if necessary, the Government of India would retain control until the 1919 crop had been completely disposed of.

23. For reasons for which the Local Government were in no way responsible, the notification prescribing the maximum price for paddy was not issued till the 17th May, and some further time elapsed before the news penetrated into the jungle. But as soon as my press communiqué was issued, the price of paddy dropped to R150, and as soon as stock-holders became aware of the Local Government's notification, paddy arrivals of which had dropped alarmingly at the end of April, again began to move freely down to the ports.

On my return to India, I visited Calcutta, Madras and Bombay and discussed with the Directors of Civil Supplies the question of tightening up rice control in India. The measures adopted will be referred to later, but it may be mentioned that they consisted chiefly of a rigorous limitation of the number of licensed importers with the object of rendering control at once easier and more effective. For two months everything worked smoothly, but with the signing of the peace treaty in July, the rumour again revived that the relaxation of control was imminent, and the price of paddy at once hardened. Millers were unable to obtain paddy at controlled prices and consequently were unwilling to enter into fresh commitments, and complaints were received from Madras, Calcutta and Bombay that licensees were experiencing difficulty in securing rice. It was also reported that speculators in Burma had brought up large stocks of rice, and that large premia had been paid in addition to the control price. On the 31st July a press notice was issued that the control would not be relaxed until the 1919 crop had been disposed of and that in any event it would be maintained till the end of December 1919. On the 1st August the Local Government issued a notification prescribing the control prices for rice announced in the press communiqué of the 8th May as maximum prices under the Defence of India Rules, and authorising the commandeering of rice in the event of its being unreasonably withheld. Finally, it was decided to make an example of stock-holders who refused to sell paddy at the controlled prices by commandeering their stocks. The *modus operandi* as finally settled by the Local Government was as follows. The different centres for paddy were divided up by arrangement among the millers. The names of stock-holders, so far as they could be ascertained by Mr. Bower, who had succeeded Mr. Stevens as Deputy Foodstuffs Commissioner (Rice) in May, were communicated to the millers, and they were instructed to approach the stock-holders with a firm offer for their stocks of paddy at the equivalent of control rates. In the event of a refusal, it was decided that notices should be served on the stock-holders requiring them to deliver the stocks at a specified wharf or station within a specified period, the millers being left to make their own arrangements to take delivery. A number of notices were served on stock-holders, but as was to be expected, it was not found easy actually to secure the paddy. The measures taken, however, had the desired effect, and very large quantities of rice were secured for India in August, September and October without any serious difficulty, nor was any shipping held up for lack of rice. Fortunately the final official estimate of the exportable surplus (2,100,000 tons cargo rice) turned out to be too low. By the middle of October 1,953,256 tons of white rice equivalent to nearly 2,300,000 tons cargo rice had arrived in the ports, and paddy was still coming down at the rate of some 20,000 tons a week.

Provision of
shipping.

24. I may here break off to refer very briefly to two questions which have had a very direct bearing on the supplies of Burma rice to India, namely, the arrangements for control over shipping and the rates of freight charged for the conveyance of rice to the different Indian ports. At the end of 1918, control was exercised over British vessels by arrangement with the Ministry of Shipping at home and in respect of foreign vessels by virtue of the powers conferred on the Government of India by rule 14-A. of the Defence of India Rules. The powers of control were vested in an officer styled the Agent to the Shipping Controller in the East, an appointment held by Major R. Douglas Story. In February 1919, however, the Government of India found it necessary to take further powers. Information had been received from home that it was proposed very shortly to terminate the Liner Requisition Scheme, but that the Ministry of Shipping would retain the powers of licensing and direction of vessels registered at ports registered in the United Kingdom. Control, therefore, could still be exercised over such vessels by arrangement with the Ministry of Shipping, but there was no power to control British vessels registered in Indian ports or ports other than those of the United Kingdom. Consequently the powers conferred by rule 14-A. of the Defence of India Rules were extended to include the licensing and direction of all vessels, whether British or Foreign, not registered at ports in the United Kingdom. The effect of the rule as amended was that owners of such vessels were required to obtain licenses from Major Story before proceeding to sea from an Indian

port, and to submit such licenses to the Collectors of Customs at the various ports when applying for Port Clearance.

This action was taken solely for the purpose of ensuring that adequate tonnage should be available for the conveyance of rice from Burma to India, and for the same reason, the Government of India resisted pressure from home that the policy in India with regard to shipping control should be brought into line with the policy decided on at home and that detailed control and direction of shipping should be disposed with as far and as quickly as possible. But when the post of Shipping Controller was abolished at home, it was no longer possible to retain Major Story as Agent to that officer, and in March 1919 he was appointed Shipping Controller with the Government of India. As already explained, one of his duties was to provide the tonnage necessary for the execution of the Foodstuffs Commissioner's monthly programme, and in the first three months of the year his task was a very difficult one. The shipping available in Indian waters was very limited in comparison with the demands for rice for India, and the position in Bombay at the beginning of April was critical. Urgent representations were made to the Secretary of State as the result of which the Ministry of Shipping made additional tonnage available for the rice traffic and also expedited the return of requisitioned ships to the British India and Asiatic Steam Navigation Companies. Thus in spite of the fact that successive reductions in the freight charges on rice gradually drove foreign ships (on which we relied greatly in the early part of the year) away from Indian waters, the tonnage position steadily improved. Indeed as the year advanced, the problem of supplying India with rice completely changed. In the early months of the year the difficulty was one of shipping. In the later months, as the exportable surplus in Burma gradually approached exhaustion, it was one of rice. Since May, indeed, a periodical anxiety has been the bunching of steamers and consequent congestion at the ports. However carefully the shipping programme was arranged and however meticulously steamers were spaced out, unforeseen accidents and delays would occur, and a bunch of rice steamers would arrive simultaneously at a port. Congestion in the docks would follow, and congestion in one port invariably led a month later to congestion in another. The most anxious time was at the end of May when I had 900,000 bags of rice in the Port Trust sheds at Bombay with another 80,000 tons afloat *en route* to the port. But by heroic efforts on the part of the Director of Civil Supplies, the Port Trust authorities, the railways and the merchants, the sheds were cleared in a remarkably short space of time, and the crisis passed away. The steamer companies also were sympathetic and forebore to press their claims for demurrage. I should here like to express my obligations to Major Story. His achievements in the matter of supplying shipping will be exhibited statistically below and will speak for themselves. But one of my chief difficulties was the bewildering rapidity with which the foodstuffs position was apt to change, and I was constantly calling upon Major Story to alter his programme and provide at short notice large quantities of tonnage for particular ports. He never failed me. Another pleasing feature of the shipping control (if I may be permitted to travel rather out of my sphere) was the complete absence of friction with the two great Indian Shipping Companies, the British India and the Asiatic Steam Navigation Companies. I had frequently to consult and negotiate with these two companies, and I should like to testify to the assistance and courtesy which invariably I received from them.

25. The following table shows the rates of freight on rice from Rangoon Rates of freight, which were in force at the end of 1918 :—

Port of destination.	Rate of freight per ton.	Pre-war rate per ton.	
		Rs.	A.*
Madras	42	9	8
Calcutta	22	5	0*
Bombay	55	9	8
Alleppy	55	9	8
Cochin	55	9	8

*Gross rates. Rebates were allowed.

A freight rate of Rs55 per ton represented an addition of 52 per cent. to the *ex-hopper* price of big mills specials as fixed by Mr. Gubbay, and as soon as he returned from Burma in the beginning of December, he was directed by the Government of India to consider whether some reduction of freight could not be secured. Under the system of control then in vogue, rates of freight were fixed by Major Story in consultation with the Shipping Controller at home, but the danger was that if freights were materially reduced, foreign ships would desert Indian waters for more remunerative markets, and much of our essential tonnage would be lost. After discussion with Mr. Gubbay, however, Major Story agreed with effect from January 15th to reduce the rates of freight on rice from Rangoon to Rs40 per ton for Bombay, Rs35 per ton for Tuticorin and West Coast ports, Rs30 per ton for Madras, Negapatam and Cuddalore, Rs20 per ton for Calcutta and Rs42 per ton for Karachi. At the end of the month a further reduction was secured. The position had been entirely changed by the announcement of the approaching termination of the Liner Requisition Scheme, and questions of freight instead of being decided by the Shipping Controller were henceforward a matter for negotiation with the two companies chiefly concerned, namely the British India and the Asiatic Steam Navigation Companies. Negotiations were at once opened by Mr. Gubbay and Major Story, and on the 30th January the former was able to announce that the rates of freight for foodstuffs from Rangoon and Akyab were reduced as below:—

To—	R	
Bombay	30	} Less a rebate of 10 per cent. on the usual terms.
Malabar ports	32	
Madras and East Coast ports	28	
Karachi	35	
Calcutta	20	

Slightly higher rates were fixed for Bassein and Moulmein and the revised rates were guaranteed for three months. On the expiry of this period in April, I again interviewed the two companies as to the possibility of securing a further reduction of the rates, and as the result of these negotiations, the rates were finally fixed with effect from the 1st June at Rs24 for Bombay, Rs26 for Tuticorin and Malabar ports, Rs22-8 for Madras, Negapatam and Cuddalore and Rs. 16 for Calcutta. These rates, of course, are still high compared with those prevailing before the war, and they have been criticized on that ground. But they are much lower than those obtaining for other kinds of cargo—for instance Rs72 per ton have freely been paid on timber from Rangoon to Madras—and it is, perhaps, a sufficient answer to criticism that the announcement of the new rates was followed by the disappearance of the Dutch tonnage which Major Story had hitherto been able to use for the transport of rice. These steamers henceforth avoided Indian waters lest they should be impressed into the service of the foodstuffs programme.

26. The following statement shows the amount of Burma rice shipped to India between the 1st January and 31st October 1919:—

	Tons.
Bombay	734,251
Calcutta	442,669
Chittagong	92,118
Port Blair	1,418
Madras	211,654
Negapatam	30,756
Cuddalore	20,321
Tuticorin	59,532
Karachi	7,128
Cochin	59,247
Calicut	10,096
Alleppey	58,815
Other Madras ports	4,898
Total	1,732,643

Results of the control.

In the ten years ending 1917-18 India's imports of Burma rice never exceeded 1,139,978 tons in any one year, and it will be seen that in the first 10 months of this year shipments of rice from Burma to India exceeded this figure by nearly 600,000 tons. Except a few thousand tons shipped in January, the whole of this quantity was rice supplied under the control scheme, and the saving to India must have been enormous. I do not propose to enter at any length into the price at which the rice was sold in India. The price varied, of course, not only according to the quality but according to the *ex-hopper* controlled prices in Burma, the f. o. b. charges (which were revised by Mr. Stevens in May with my sanction), the rate of freight, and the profit allowed to the importer. It is sufficient to say that in Bombay in July the whole-sale controlled prices of the different qualities of Burma rice varied from Rs6-4-0 per bag of 168 lbs. for the lowest quality of brokens to Rs13-15-6 per bag for long grain special, the most expensive quality of boiled rice. The controlled price for small mill specials was Rs12-0-3 per bag of 168 lbs. or Rs8 per cwt., and it is interesting to note that according to information collected by Mr. Bower, this same quality of rice was selling about the same time at Rs14 per cwt. in Java and Saigon, at Rs15 in Siam and at Rs18 in Japan. In most cases, moreover, the prices quoted by Mr. Bower were controlled prices. It has been ascertained from the Government of Ceylon that they had to pay in Bangkok, Hong Kong and Singapore prices for rice varying from Rs27 to Rs57 per bag f. o. b. The f. o. b. prices of the corresponding qualities of Burma rice in Rangoon at the same time varied from Rs8-9-3 to Rs10-2-4 per bag. Mr. Gubbay's controlled *ex-hopper* price of Rs335 per 100 baskets of 7,500 lbs. of big mills specials is equivalent to Rs100 a ton, and my revised price of Rs385 per 100 baskets represents Rs115 per ton. It is generally agreed that if it had not been for the control the price of big mills specials would have risen to Rs500 (equivalent to Rs150 per ton) or even higher. But even if we make the very conservative assumption that had it not been for the control, the average wholesale price of Burma rice in India would have been Rs30 per ton higher, it means that the saving in India by the operation of the price control on the 1,700,000 tons imported amounted to more than 5 crores of rupees.

27. An equivalent loss was, of course, caused to Burma, and in Burma the whole scheme of control was fiercely assailed. It was asserted that the Government of India were feeding India at the expense of the Burman cultivator, and it was pointed out that instead of attempting to control the price of wheat in Canada and Australia, the British Government were paying £50 million sterling a year to keep the price of the quartern loaf at home at 9d. I do not think that I need reply at any great length to these criticisms. It is, of course, true that the prosperity of the cultivator in Burma is bound up with the prosperity of the export trade in rice. Indian cultivators had prospered greatly during the war owing to the high prices obtained for their cotton, their wheat, and their oil seeds. The Burman cultivator, on the other hand, had passed through a series of lean years and naturally looked to recouping his losses. Extremely high prices ruled for the rice exported from Siam and Saigon in 1919, and it must have been extremely galling to the Burman to find himself prevented from reaping similar profits. Quite naturally this point of view was strongly pressed in the press and on the platform in Burma, but I do not think that anyone in Burma ever expected that the Government of India or the Local Government would take this line of argument seriously. Reduced to its essentials, it amounted merely to a plea that the Government of India should stand aside and leave the rice trade of Burma to take advantage, for the purpose of profiteering, of the necessities of India and of the world shortage of food which was the direct consequence of the war. Mr. Gubbay had shown how the rice trade of Burma could be brought under control, and having regard to the needs of India, of which Burma is a part, it would have been a clear dereliction of duty on the part of the Government of India if they had omitted to use the weapon which Mr. Gubbay had forged. At the same time, both Mr. Gubbay and I realised the necessity of dealing fairly with the cultivator, the stock-holder, and the miller in Burma, and had we not done so, the control scheme would at once have broken down. In making it effective, we had to rely very largely on the

Burman criticism of the control scheme.

co-operation of the Government of Burma, and at every stage we had to satisfy the Local Government that the interests of Burma had been duly safeguarded. With this aspect of the question I have already dealt. It is here sufficient to mention that the average price for paddy in this year has only twice been exceeded in the last 17 years, and I do not think that we can reasonably be accused of illiberality. The people of Burma, no doubt, will still continue to nurse their grievance, but at any rate they have the consolation of knowing not only that Burma rice has been the salvation of the situation in India, but also that had it not been for the control, their experience would have been the same as that of the people of Siam. Until the 12th June 1919, Siam was a free market for rice, and no embargo was placed on exports. Unprecedented prices were obtained, and exports were very heavy. They were so heavy in fact that the country was drained of rice. Prices were driven up for the consumer in Siam, and large sums of money had to be advanced by the Treasury "for the purpose of buying and transporting rice for the relief of the people." I quote from a notification issued by the Siamese Board of Rice Control on the 28th August 1919. It must also be remembered that while, on the one hand, we regulated exports of rice from Burma, we also provided the shipping necessary to take away that rice. I append below the latest statement of the rice position received from the Deputy Foodstuffs Commissioner (Rice):

Rice position for the period ending 4th November 1919, in tons of white rice.

1	2	3	4	5	6	7	8	9
Port.	Estimated 1919 crop available for export.	Lardings in the ports.	Shipments of 1919 crop including all steamers cleared up to 14th October.	Balance awaiting shipment (3-4).	Quantity of 1919 crop still to arrive (2-3).	Tonnage now loading.	Tonnage expected.	Estimated balance for which no tonnage has been fixed.
Rangoon . .	1,567,143	1,548,701	1,395,546	153,155	18,442	12,500	54,350	86,305
Bassein . .	240,000	240,000	231,500	8,500	...	...	...	8,500
Akyab . .	187,000	187,000	180,303	6,697	...	...	...	6,697
Moulmein . .	63,000	63,000	60,008	2,992	...	...	...	2,992
Total . .	2,057,143*	2,038,701	1,867,357	171,344	18,442	12,500	54,350	104,494

* Equivalent to 2,400,000 tons cargo rice.

Acknowledgments.]

33. It will be seen that we lifted practically the whole of the 1919 crop, and that every port in Burma was extremely well served with shipping. Mr. Gubbay and I both owe a deep debt of gratitude to His Honour the Lieutenant Governor, not only for his advice which was always freely at our disposal, but also for his consistent support of the control scheme when once he had accepted it. Mr. Stevens worked under me as Deputy Foodstuffs Commissioner (Rice) only for a short time. But his unique experience of the rice trade in Burma was invaluable, and he was of great assistance both to Mr. Gubbay when he was working out the control scheme, and to me when I was revising it. Mr. Bower succeeded Mr. Stevens in May 1919. His previous training, both in the Customs Department and in the office of the Shipping Controller, served him in good stead, and he was a most useful Assistant. I venture to bring the good work done by both these officers to the notice of the Government of India. There is one other remark that I should like to make. I have made above certain criticisms on points of detail in Mr. Gubbay's scheme of control, and I should like to make it clear that every one whom

I consulted in Burma considered that the control had worked marvellously well, and that whatever scheme had been devised in December modifications would have been necessary in April.

(b) Imports of Australian wheat.

34. As soon as Mr. Gubbay returned from Burma in the beginning of December 1918, he was directed by the Government of India to consider the possibility of importing wheat from Australia. The wheat position in India was then very difficult. In spite of the announcement by the Government of India in the beginning of October of the termination of purchases for the Royal Commission, prices of wheat in the Punjab and the United Provinces had touched the record. The balance of the 1918 crop had passed into the hands of stock-holders, the prospects of the 1919 crop, owing not only to restricted sowings but also to the continued holding off of the winter rains, were not bright, and there was reason to believe that stocks were being hoarded up in the Punjab and the United Provinces in the hope of prices being forced still higher. It was impossible to apply to Indian wheat a system of control similar to that devised for Burma rice, and it was decided that there was no method either of tempting out the stocks of wheat held in the country or of keeping down prices other than that of turning the markets on to a new source of supply. Large stocks of wheat were known to exist in Australia, and on the 9th December preliminary enquiries were addressed to the Secretary of State as to the possibility of securing a share of these supplies for India. At first it was hoped that the business of import could be left to private firms, but the scarcity of tonnage, the high rates of freight, the uncertainty of the Indian market and the risk of serious loss all made it impossible for private enterprise to touch the business, and the Government of India were compelled themselves to assume the responsibility and to take the risk. Thanks to the good offices of the Secretary of State, however, very favourable terms were secured from the Royal Commission on Wheat Supplies and the Australian Government. Both agreed to supply wheat at cost price, and in recognition of the assistance received by the Home Government from India during the war in the matter of wheat supplies, the Treasury agreed to freight being charged for at bare cost, the rate being estimated at 50 shillings per ton. It was stipulated, however, that the wheat should not be sold at a profit in India. These terms were gratefully accepted by the Government of India, and arrangements were made for the shipment to India of 50,000 tons of wheat in each of the months of February, March and April. Of this quantity, 120,000 tons were sold by the Royal Commission at cost price, namely shillings 44-6 per quarter of 480 lbs., while 30,000 tons were purchased from the Australian Government at shillings 44 per quarter f. o. b. Australia.

35. The next step was to settle the method of finance and to arrange for the handling of the cargoes on their arrival in India. At that time a large number of flour mills in India had been taken under control by the Controller of Contracts, and these mills were employed entirely on producing flour and *atta* for the troops, wheat being supplied to them for the purpose. It was originally intended that the bulk of the imported wheat should be utilised by these controlled mills and that the balance should be sold to uncontrolled mills in Bombay and Calcutta. It was arranged that payment for the wheat and freight should be made at home by the Secretary of State, and that the Government of India should recoup themselves from the sale-proceeds in India. Supplies made to controlled mills, of course, involved no payments by the mills, but it was anticipated that the reduction of the payments then being made for purchases of Indian wheat would reduce military expenditure, and that this reduction combined with direct recoveries from uncontrolled mills would tend to ease the strain on Indian balances. As a matter of fact, for reasons which will be explained later, supplies to controlled mills were small, and the great bulk of the imported wheat was sold to uncontrolled mills and merchants in Bombay and Calcutta. The arrangements for finance, therefore, whereby the wheat and freight were paid for in sterling in London while the sale-proceeds were recovered in rupees in India, were of some assistance in relieving the ways and means problem in India since, in effect, the rupee payments

represented a retransfer to India of funds locked up in London. The successive rises in exchange, moreover, which took place between May and October 1919 also helped to protect the Government of India from loss in respect of transactions of an unusual character which involved very large sums of the taxpayers' money.

Handling and
sale in India.

36. The condition that the wheat must not be sold at a profit made it necessary that the firms selected to deal with the wheat on arrival should work merely as agents of the Government of India. The firms selected were Messrs. Louis Dreyfus and Company at Bombay and Karachi, and Messrs. Shaw, Wallace and Company at Calcutta, both these firms having offered to dispense with any commission and to charge merely on the basis of actual expenses incurred. After negotiations with these firms, *pro forma* charges were finally agreed to by the Foodstuffs Commissioner. In Bombay and Karachi they covered the following items:—(1) Terminal tax, (2) town duty, (at Bombay only), (3) weighing on arrival, (4) loading on boats, (5) unloading, (6) sewing on steamers and replacing gunnies, (7) weighing on delivery, (8) godown rent, (9) establishment charges, and (10) fire insurance. All these charges, except the first three, were arranged for on a contract basis. In Calcutta a similar *pro forma* was drawn up, though naturally the details differed, but Messrs. Shaw, Wallace and Company preferred to work on the basis of expenses actually incurred. In addition to the above charges, allowances were made for loss in outturn, quality, loss in interest and marine insurance (3-10%). Marine insurance was effected by Messrs. Shaw, Wallace and Company at the contract rate for all wheat ships arriving at Calcutta, Bombay and Karachi. The charges under the above heads amounted to As. 7.1 per maund in Bombay, As. 6.6 per maund at Karachi and As. 5.5 per maund in Calcutta. The basis for the sale price was arrived at by adding to the *pro forma* the f. o. b. price of the wheat in Australia plus the freight charges, both converted at the current rate of exchange. Special officers were posted to Bombay and Calcutta for the purpose of effecting sales. Mr. C. W. Jacob, I.C.S., who had previously held the appointment of Wheat Commissioner, was appointed Deputy Foodstuffs Commissioner (Wheat) and was placed in direct charge of the operations under the Foodstuffs Commissioner with headquarters at Calcutta. Mr. O'Byrne, I.C.S., the Assistant Foodstuffs Commissioner (Wheat), was posted to Bombay. In June the need for a second officer having disappeared with the completion of sales in Calcutta, Mr. Jacob was transferred to Bombay, and Mr. O'Byrne reverted to his province. Both officers did very good work, Mr. Jacob's exceptional knowledge of the wheat trade due to his long connection with the operations of the Royal Commission being particularly useful. Sales at Karachi were small, and delivery orders were issued under the directions of the local Director of Civil Supplies.

The quantities.

37. The first wheat cargoes began to arrive from Australia in the beginning of March. In the meantime, the first forecast of the 1919 wheat crop had been received by the Government of India. It showed a decrease in the area cultivated with the crop of 33 per cent., compared with the previous year, and on the 11th February the Government of India had asked the Secretary of State whether supplies of Australian wheat to India could be raised to a total of 500,000 tons delivered at the rate of 100,000 tons a month. In view of tonnage difficulties and the demands of European countries, the Royal Commission were unable to accede to this request, but after some negotiations they agreed rather reluctantly to supply at a slightly higher price 75,000 tons in excess of the programme previously sanctioned. In the middle of April, however, the Royal Commission found it necessary to reconsider its decision. The United Kingdom, France and Italy had reached the period when home crops having passed into consumption, they were entirely dependent on imported supplies, and it was essential to utilise the limited shipping which the Shipping Controller was able to provide for the purpose of sending wheat to Europe. The Government of India accordingly were asked whether they would agree to the diversion to Europe of the 75,000 tons extra wheat previously promised them. At this period the wheat position in India was temporarily easier. Prices had fallen, and the new harvest was expected in the following month. The Government of India, therefore, agreed to the diversion of these

cargoes to Europe, but they stipulated that they should be regarded as having a preferential claim to an equivalent quantity of Australian wheat later in the year if it was required. Further supplies at a slightly enhanced price (shillings 46-6 per quarter) amounting to some 15,000 tons were secured in July and August, and a certain amount of wheat was shipped to India from time to time in liners up to the end of October. But at the end of September the improvement in the general agricultural outlook justified the Government of India in renouncing their lien on supplies of Australian wheat. In all 53 steamers (inclusive of liners) brought wheat to India on Government account in 1919, and the appended statement shows the total amount imported and the distribution among the different ports:—

	Tons.
Calcutta	27,954
Bombay	138,004
Karachi	36,738
Total	200,696

38. These imports of Australian wheat were arranged partly in order that the pressure on stocks of Indian wheat might be relieved and partly in the hope that we could use them as a lever on prices. At first our position was not easy. The *pro forma* price was so calculated as to cover reasonable risks, and strictly speaking it represented the best estimate we could make of the price at which we could afford to sell without incurring loss. At the same time, the stipulation made by the Treasury that we should not sell at a profit rendered it necessary at first that we should not go above the *pro forma* price. In the initial stages therefore the position was that, while we could not exceed the *pro forma* we might have to go below it if as we hoped the arrival of larger quantities of Australian wheat had the effect of bringing down the price of Indian wheat. Later on of course it might be legitimate to sell above the *pro forma* in order to cover losses previously incurred, but if the arrival of the wheat did result in a fall in the price of Indian wheat it was natural to suppose that the United Provinces harvest in April and the Punjab harvest in May would bring prices still lower. The Government of India therefore were quite prepared to face a considerable loss.

At first, it looked as if our expectations would be realised. Four steamers with more than 25,000 tons of wheat arrived in Bombay in the first half of March. The price of Indian *Pissi* wheat 70 per cent of which on the 2nd March had been quoted in Bombay for March delivery at R11-8-0 per cwt. dropped to R10-6-0 on March 14th and to R9-14-0 at the end of the month. Prices in Calcutta fell in sympathy, and in order to sell the first three cargoes which arrived in Calcutta at the end of March and in the beginning of April, we had to reduce our price well below the *pro forma*, and we sustained considerable loss. In Bombay great difficulty was experienced at first in finding a sale for the wheat. The *pro forma* price at that time was R9-8-0 per cwt. or As. 6 below the current price of *Pissi* wheat. But buyers held off possibly because they had no experience of Australian wheat, and also because with stocks beginning to emerge in view of the approaching harvest in the Punjab, they expected the prices of Indian wheat to drop and a corresponding reduction in our price. At the end of the first week in April, 72,429 tons of Australian wheat had been landed in Bombay but only 12,895 tons had been sold. Nearly 30,000 tons were due to arrive before the end of the month, and another disquieting fact was that it had not been possible to find covered storage for all the wheat which had arrived, and much of it was lying on open plinths at Sewri. Heavy showers of rain might do this wheat considerable damage. In order to expedite the rate of sale, the price was reduced to R9-4-0 per cwt. from the 6th April, and arrangements were also made to secure covered storage for the wheat lying in the open at Sewri. Sales, however, continued to be small till the 3rd week in April, but in that week, probably owing to the disturbances in the Punjab, prices of Indian wheat began to harden. *Pissi* wheat, which had dropped to R9-10-0 per cwt., rose sharply to R10. Simultaneously, a brisk demand for Australian wheat sprang up from Berar, and in the week ending 26th April, 8,215 tons were sold. The outbreak of the Afghan War

followed, and in spite of the harvest of the new crop in the Punjab, the price of wheat in Bombay continued to rise till *Pissi* wheat reached Rs. 11 per cwt. in the middle of May. Our selling price was gradually raised to the maximum allowed by the original *pro forma* viz., Rs. 9-8-0 per cwt., but the wheat was eagerly bought up, and by the end of the first week in June 76,440 tons had been sold out of arrivals in Bombay aggregating 107,641 tons. By this time the risk of serious loss had disappeared. In the first place, in the original *pro forma* the estimates for quality allowance and loss in outturn had necessarily been pitched high, as we had no experience to guide us in dealing with Australian wheat, and moreover it was known that the wheat which was being supplied to us had been for a long time in storage in Australia. After the first few cargoes had been handled, however, it was found that the estimate for quality allowance and loss in outturn might safely be reduced from 2 per cent. and $1\frac{1}{2}$ per cent. respectively to $\frac{3}{4}$ per cent. and $\frac{3}{4}$ per cent. These reductions reduced our *pro forma* price to Rs. 9-4 per cwt., but it was decided to retain Rs. 9-8 as our maximum, partly because of losses which had occurred in Calcutta and were expected in Karachi, and partly because there was no object in making a present of As. 4 per cwt. to uncontrolled flour mills in Bombay. But what really saved us from loss was the rise in exchange from 1s. 6d. to 1s. 8d. on the 13th May, followed by the further rises in August and September. With the advent of the monsoon, prices of Indian wheat began to drop, and sales fell off. The price was again reduced, and a temporary improvement was effected in the rate of sales, but as the monsoon developed, increasing difficulty was experienced in disposing of the wheat which had arrived in April and May, and which had deliberately been kept back at Mr. Keatinge's request as a reserve against the trying times expected in Bombay in the monsoon. This difficulty was not felt in respect of fresh cargoes arriving from Australia. The 5,000 tons which arrived by the S.S. *Orissa* were sold within two hours of the vessel's arrival on the 19th June. But the other wheat had previously been treated for weevil in Australia, and as invariably happens with wheat so treated, when the weevils again made their appearance, they increased and multiplied at an incredible rate. I inspected the stocks then amounting to 18,000 tons at the end of July, and again reduced the price. But at the end of August 11,000 tons still remained unsold. There was no demand either in Bombay or elsewhere in India. Merchants refused to buy the wheat for sale as wheat, and the mills whose markets had been contracted by the restrictions on the export of flour were fully stocked. Mr. Jacob reported that no reasonable reduction in price was likely to have any appreciable effect on the rate of sale. On the other hand, he stated that weevilling was proceeding at such a pace, that unless early measures were taken to get rid of the stocks, there was every likelihood of large quantities of valuable foodstuffs, which if not required in India were in urgent request in countries ordinarily dependent on India for their supplies, being entirely destroyed without anyone being benefited. It had been previously arranged that the Controller of Contracts should take over 2,000 tons of this wheat for use in controlled mills, and it was now decided that other millers who bought the balance of the wheat should be given not only an allowance for loss in weight, but also export licenses for flour up to 90 per cent. of the quantity of wheat purchased. No difficulty was experienced in selling off the weevilled stocks on these terms, and such odd liner cargoes as continued to arrive in Bombay were readily sold at prices which the fall in exchange enabled us to pitch fairly low. In Karachi the imports of Australian wheat gave greater trouble. Mr. Gubbay had despatched five steamers to this port, and it was originally intended that the whole of this wheat should be made over to the Controller of Contracts for use in the controlled mills. The first two cargoes, aggregating 13,774 tons net, which arrived on the 21st March and the 1st April, were accordingly made over to Messrs. Ralli Brothers on military account, but the flour and *atta* made from the wheat did not keep quite so well as the products of hard Punjab wheat, and it was decided that the remaining cargoes should be utilised for civil requirements. There was, however, only one uncontrolled mill in Karachi, and the Indian population of Sind much preferred the qualities of wheat to which they were accustomed. Moreover, Punjab wheat was considerably cheaper in Sind than in the Bombay Presidency proper. The price of the Australian wheat was reduced at the end of

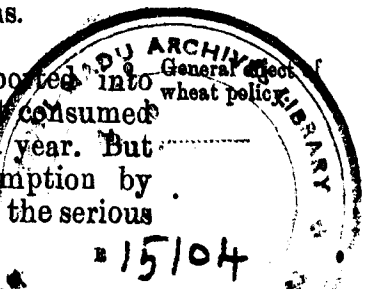
June, but the reduction had little effect on the rate of sales, and a further complication ensued in the setting in of weevilling at an even more rapid rate than in Bombay. It was found necessary to go to the expense of cleaning the wheat, but at the end of July there were still more than 13,000 tons in stock. The price was again reduced, but by this time the demand had died away altogether, and practically no sales were effected. At the end of August, therefore, the balance of the wheat remaining at Karachi, amounting to 11,300 tons, was made over to the Controller of Contracts for use in the controlled mills. It was agreed that an allowance should be made based on the actual loss in outturn experienced in milling, and that this loss should be charged to the wheat account.

39. I regret that I am not yet able to state accurately the financial results of the transactions. Account sales for several cargoes are still due from the agent firms, and until all these accounts have been received the audit cannot be begun. Mr. Jacob hopes that it will be possible to begin the audit before the end of the current month (November), and the audited accounts will be published as soon as possible. In the circumstances, only an approximate estimate can be offered at present of the financial results of the transactions. No intimation has yet been received from the Secretary of State of the amount paid on account of the freight and cargoes of three steamers totalling about 4,000 tons which arrived in Bombay only recently. Excluding these three steamers, payments by the Secretary of State on the account of the Government of India in respect of Australian wheat have been as below:—

£	s.	d.	s.	d.	R	A.	P.
1,269,120	5	2	at 1	5 $\frac{3}{4}$	1,69,51,032	5	2
1,002,206	18	8	„ 1	7 $\frac{3}{4}$	1,20,46,025	1	10
254,998	14	7	„ 2		25,49,987	4	8
2,526,325	18	5			3,15,47,044	11	8
Add—							
Freight paid in Bombay					67,544	7	2
					3,16,14,589	2	10

The net receipts from the sale proceeds of all cargoes for which account sales have been received amount to more than Rs. 254 lakhs. But account sales have yet to be received in respect of nearly 50,000 tons of wheat, and I prefer at this stage not to commit myself too far. As far as can be seen, however, the final accounts when received are certain to show a profit. This profit was due partly to the fact that we had the Controller of Contracts to fall back upon in case of need, and, as has already been explained, we should have lost heavily on our stocks in Karachi in August had he not taken them over for use in the controlled mills. But the main factor was the rise in exchange. Our *pro forma* was drawn up on the assumption that payments would be made by the Secretary of State on receipt of cable advice of shipment, and as a very large proportion of our wheat ships sailed from Australia in February, March and April, exchange was calculated at 1s. 5 $\frac{3}{4}$ d. But some delay took place in payment in London and we got the benefit of the 1s. 8d. exchange on an unexpectedly large proportion of the earlier payments. If there is any loss on the guarantee given to Distributing Agent firms in Calcutta, as explained in paragraph 51 of this report, it will be more than covered by the profits on the Australian wheat transactions.

40. In all about 200,000 tons of Australian wheat were imported into India. This quantity is a mere fraction of the amount of wheat consumed in India which has been estimated at some 8 million tons in a normal year. But the imports combined with the stocks conserved for Indian consumption by the restriction on exports helped to relieve the situation caused by the serious



shortage of the wheat crop in 1919. The stocks of Australian wheat in Bombay, Calcutta and Karachi eased the pressure on the Punjab and the United Provinces, and undoubtedly they contributed to the result that the retail price of wheat in the Punjab, United Provinces, Central Provinces and Bombay was cheaper in September 1919 than it had been in September 1918. It was in Bombay of course that the effect of the imports of Australian wheat on retail prices was most marked. The average retail price in the Presidency was three seers and $11\frac{1}{2}$ chittaks for a rupee in January 1919. In September 1919 it was four seers six chittaks. It is noteworthy that in the latter half of October, when imports of Australian wheat were known practically to be at an end, the wholesale price of wheat in Bombay rose rapidly. A desire was expressed in some quarters that Government should continue to import wheat from Australia, but with exchange at 2s., the freight position becoming easier and all danger of an actual shortage of food in India at an end, it was thought that there was no reason why Government should continue to interfere in a sphere which properly belongs to private enterprise. I have had applications from more than one quarter for permission to import Australian wheat and I take this opportunity of noting that no permission is required. On the contrary, in order to encourage private imports of foodstuffs, Government have removed temporarily all import duties on grain and pulse imported.

Quality of
Australian wheat.

41. The wheat was shipped under a certificate from the Australian Government that it was of fair average quality. Mr. Jacob reports that in quality it most nearly resembled Indian *Pissi* wheat. It was practically clean containing only about $\frac{1}{2}$ per cent. of dirt and $\frac{1}{4}$ per cent. of foreign grain. It appeared, however, to have been treated for weevil in Australia, and there was a fair proportion of shrivelled and weevilled grains averaging about $3\frac{1}{2}$ per cent. and varying in different cargoes from 2 to 6 per cent. Though Australian wheat has been shipped to India in the past, the majority of the mills had had no experience of it, and at first they showed some reluctance to take it. The wheat being rather soft, it was considered at first that the best milling results would be obtained by mixing Australian wheat with Indian in the proportion of 60 to 40. After some experience had been gained, however, some mills found it unnecessary to mix Australian wheat with Indian wheat and there was a keen demand for the wheat not only because it was cheap but also because the flour made from it was popular with the public. Unlike Indian wheat, Australian wheat was passed through the mills without being washed, and though the mills lost the advantage of the gain in weight which follows washing, compensation was afforded by the greater speed with which the wheat could be passed over the mill and by the better yield of flour. At first, before the mills had gained experience of the wheat, the bulk of it was sold to merchants. Thus between the middle of March and the end of June some 44,000 tons were sold to merchants for distribution in the Bombay Presidency, while during the same period only 18,000 tons were sold to the mills. After the end of June, the demand from the interior declined while that from the Bombay mills increased. Thus between July and September private merchants bought only 5,000 tons against 40,000 tons purchased by the mills. Nearly 9,000 tons were taken at intermittent intervals by the Central Provinces and Berar merchants.

The Agent Firms.

42. My acknowledgments are due to the two agent firms Messrs. Louis Dreyfus & Co. and Messrs. Shaw Wallace & Co., and in particular to Mr. Henchoz of the Bombay Branch of the former firm on whom the bulk of the agency work fell. As already stated, these firms gave their services without charge except for actual expenses incurred.

(c) *Burma white beans and South African maize.*

Beans and maize.

43. Two other possibilities in the way of imports were examined. The Royal Commission on Wheat Supplies had bought practically the whole of the 1918 crop of Burma white beans amounting to upwards of 110,000 tons. In October 1918 the unshipped balance of the crop amounted to more than 40,000 tons, and the question was considered whether these stocks should be

taken over for use in India. But the price of the beans was high, and it was ascertained that opinion in the provinces was much in favour of the limited shipping available being utilised for the carriage of rice. In the meantime the 1919 crop was coming on. The cultivators had been warned that there would be little demand for beans in 1919, but in view of the high prices obtained in 1918 they had disregarded these warnings and had planted a large area with this crop. It was suggested that these beans might be utilised for feeding the Central Empires in Europe, but the Government of India were advised by the India Office that the prospects of finding a market for the crop in this way were small. A limited amount of space was set aside in every rice steamer loading for India for general cargo, and in March Mr. Gubbay offered to allow the shipment of 5,000 tons of beans in the space so set aside in order that the market for beans in India might be tested. Subsequently as the demand for rice slackened, the space reserved for general cargo was increased and there was a certain demand for beans in India. In all nearly 40,000 tons of beans were shipped to India between the 1st January and the 30th September 1919. The efforts to secure maize from South Africa were entirely unsuccessful. A Calcutta firm was encouraged to make enquiries in South Africa, and the Secretary of State was asked whether there was any objection to the Government of India endeavouring to arrange for import. The Secretary of State's reply was that almost the whole of the South African crop had been purchased by the Royal Commission for use in Europe and that none could be spared for India. The matter was not pressed since the private firm already referred to had ascertained that the price obtaining for maize in South Africa was so high as to rule out any possibility of import into India except at a very heavy loss.

(3) INTERNAL DISTRIBUTION.

44. The primary object of the appointment of the Indian Foodstuffs Commissioner was to secure the most effective distribution to deficit provinces of the supplies of wheat, rice and gram, and subsequently of other foodstuffs which were not required for local consumption in surplus provinces. Originally it was intended that the Foodstuffs Commissioner should arrange through the agency of selected firms for the actual purchase of grain and for its despatch to the destinations and consignees indicated by the Directors of Civil Supplies in the deficit provinces. On further examination, however, this idea was given up. It was considered to be too risky to endeavour to substitute a Government distributing agency for the private distributing agency created by generations of small traders. Only three foodgrains were brought under strict control, wheat, rice and gram, and it was decided to limit the intervention of the Foodstuffs Commissioner to the fixation, subject to the approval of the Government of India, of certain allotments within which ordinary trade agencies should be allowed to import into the deficit provinces. Eventually the system developed into the following arrangements:—

(a) *Wheat, gram and rice*:—These grains could not be moved from one province to another save within the limits of allotments sanctioned in each month by the Government of India. The procedure was that the Director of Civil Supplies of the importing province issued railway priority certificates to selected merchants up to the limit of the amount sanctioned by the Government of India. The certificates, however, were not honoured by the railways until the counter-signature of the Director of Civil Supplies of the exporting province had been obtained. Except in Madras, where the certificate was in force for a shorter period, the period of validity was 21 days.

(b) *Foodstuffs other than wheat, gram and rice*:—In British provinces Local Governments had no power to prohibit the export of flour or foodgrains other than wheat, gram and rice. The Directors of Civil Supplies of the importing provinces were at liberty to issue certificates for their requirements, and these certificates

did not require the counter-signature of the Directors of the exporting provinces. But the Directors were expected to work in consultation with one another, and to avoid issuing certificates on scarcity areas or areas where stocks were known to be low.

(c) *Intra-provincial movements*:—Local Governments were given full powers, in consultation with the railways concerned, to restrict the movement of foodgrains from one district to another within their provinces.

Working of the system.

45. As has already been explained, these restrictions were necessitated by the congestion on the railways, and it is not necessary to discuss at any length the question how the system of control, which circumstances compelled the Government of India to impose, worked in actual practice. It is probable that the measures taken tended to reduce speculation, to conserve supplies, to keep down prices in exporting provinces, and to facilitate price control in importing provinces. On the other hand, the Government of India always recognised that the system had grave disadvantages, and as far back as December 1918 they considered seriously whether they would not be justified in abolishing the railway priority system altogether. The system afforded opportunities for bribery and corruption, and as the year advanced, there was reason to believe that it was increasingly lending itself to evasion. The delays inseparable from certification hampered trade operations which often depend on the immediate seizure of favourable opportunities, and when, as not infrequently was the case, merchants who had been accustomed to buy in one province, were unavoidably diverted to another, the difficulty of forming new trade connections at short notice led in some cases to the priority certificates not being implemented, and the failure of supplies which may have been urgently required. The main objection to the system was that it hampered and embarrassed private trade, and the Government of India always kept before them the desirability of allowing trade to resume its normal course and of leaving the movement of foodgrains within India to the regulation of the laws of supply and demand as soon as the railway position and the agricultural outlook justified this step.

Uncontrolled grains.

46. Some comment is necessary on the orders relating to the movement of foodgrains other than wheat, gram and rice. Originally Local Governments had been given power to prohibit the export of such foodgrains from their provinces. Some Local Governments promptly exercised this power with the result that certain areas, especially in Western India, owing to the closure of their usual markets, soon found themselves in a condition of serious deficit. It was considered whether the detailed control exercised over wheat, gram and rice should not be extended to other foodgrains, but effective control was impossible unless the available supplies of the controlled commodities and their location had been ascertained with some approximation to accuracy. More information of this kind was available in respect of wheat, gram and rice than in respect of other foodgrains, and the Government of India decided that the information at their disposal in regard to available stocks of these other foodgrains did not justify them in extending their control further than it already existed. They came to the conclusion, therefore, that in respect of these foodgrains the dangers inherent in the restrictions imposed by Local Governments were greater than those to be apprehended from the removal of these restrictions. Accordingly it was decided in December 1918 to withdraw from Local Governments the power of prohibiting the export of these foodgrains from their provinces. The orders aroused some protest, especially from the Government of Madras. On the whole, however, they worked well. Difficulties at one time seemed likely to arise in respect of a threatened denudation of stocks of jowar, bajra and ragi in certain deficit areas in Madras owing to heavy purchases by Bombay merchants. But a compromise was effected, and the danger was averted. No attempt, however, was made to enforce these orders on Native States. The Darbars of some of these States considered that the interests of the people committed to their charge rendered

it essential that a complete embargo should be placed on the export of foodgrains from their States. Pressure might have been put on at least some of the Darbars to come into line with the policy adopted in British India by depriving them of supplies of Burma rice. But though they were placed in possession of the Government of India's views on the subject, it was decided that the Darbars should be allowed to decide for themselves what policy they would adopt.

47. Another question which was referred to the Government of India on Movements by more than one occasion by more than one Local Government was the question whether movements of foodgrains by road, river and canal should be brought under control as well as movements by rail. The Government of India decided against this proposal. Their policy was to confine their interference with the ordinary course of trade within the narrowest possible limits, and further, it was considered that it would be very difficult to make the control of movements by road effective while the attempt to do so would inevitably open the door to petty blackmail and oppression. Another reason for rejecting the proposal was that it meant the addition of a new rule to the Defence of India Rules, and as the year advanced the Government of India became more and more reluctant to use these rules for the purpose of dealing with economic distress in India and still more reluctant to extend them.

48. Price control in India was no part of the Foodstuffs Commissioner's Price control duties. With the approval of the Government of India, he made monthly allotments of wheat, gram and rice, but Local Governments through their Directors of Civil Supplies made their own arrangements for licensing importers, for distributing the grain when received and for price control. Intervention by the Foodstuffs Commissioner was necessary only when laxity of control in India threatened to upset his arrangements in Burma. Even then no orders were issued. The matter was discussed in person with the Directors concerned. It may be remarked parenthetically that both Mr. Gubbay and I toured incessantly, and that in this way we were able to keep not only the Government of India advised of the position and prospects in the different provinces but also the Director of Civil Supplies in one province in touch with developments in another. Railway priority certificates and import licenses offered Local Governments a useful lever for control, and all Local Governments had power not only to commandeer stocks of foodgrains unreasonably withheld from the market under the Articles of Commerce Ordinance, but also to delegate their powers to their officers. Some use was made of these powers from time to time, but generally speaking the policy of attempting to keep down prices artificially by drastic penal legislation was avoided. After the outbreak of the Afghan War, the Chief Commissioner of the North-West Frontier Province was authorised to fix maximum prices for foodstuffs under the Defence of India Rules, and for special reasons similar action was sanctioned in two districts of Bombay and in respect of ragi in Bangalore. But as a matter of general policy the Government of India disapproved of the fixation of maximum prices under the Defence of India Rules. They attributed the high range of prices to an actual shortage of foodstuffs aggravated in particular areas by difficulties of railway transport, and apart from the difficulty of enforcing maximum retail prices over wide areas, there was the obvious danger that the prices, if fixed too low, would deter the merchants from importing and thus accentuate the shortage. There was little divergence of opinion on this point, only one or two Local Governments being desirous of making the fixation of prices an integral part of their price policy. The policy favoured in most provinces was that of controlling prices by opening cheap grain shops. In most of these shops Burma rice was used for purposes of control, and the first essential, of course, was that strict supervision should be exercised over the importers at the ports of entry in order both that the rice might be distributed where it was most required and that it might reach the consumer without unnecessary or undue intermediate profits. This was a question in which I was deeply interested from the point of view of the maintenance of the rice control in Burma, and I give below a brief account of the methods adopted in Bombay, Madras and Calcutta.

Control in Bombay.

49. No great measure of success was attained in the early months of the year in any of the ports, but gradually an improvement was effected. In Bombay drastic methods were employed, and licenses for import after the beginning of May were granted only to a few reliable firms. 10,000 tons a month were earmarked for Bombay city, and the import of this amount was entrusted to a single firm, Messrs. Currimbhoy, Ebrahim and Company. The remaining licenses were divided up in fixed proportions between the big millers in Rangoon and two Indian firms, Messrs. Tata Sons and Company and Messrs. Amarchand Madhowji and Company. These arrangements naturally caused strong resentment among the merchants established in the Bombay-Burma rice trade, but unfortunately the interests of the trade had to be sacrificed to other more important considerations. The problem of control was extremely difficult. The difficulty arose from the fact that we were endeavouring to place Burma rice on the market at a price much below its real market value. It was obvious, therefore, that unless control was real right up to the point when the rice reached the consumer, some one would snatch an illicit profit at some link in the chain, and it was the fact that these illicit profits were made that led to the secret bonus system, which threatened to render nugatory the rice control in Burma in April. Apart from price control the mere problem of sending the rice from the port to the numerous districts which were clamouring for it was very complicated where the Director of Civil Supplies had to deal with immense quantities of rice and a very large number of small importers. The main justification for the revised arrangements made by Mr. Keatinge, the Director of Civil Supplies, Bombay, whose health unfortunately broke down under the strain in May, was that they were successful. The distribution to districts was entrusted to whole-sale agents selected by the Collector. These men took over the rice from the importers at prices fixed by the Director of Civil Supplies and railed it up-country on priority certificate. The business thus was reduced to manageable proportions, and Mr. Brander, Mr. Keatinge's successor, had no difficulty in maintaining a steady stream of rice to the districts which required it. The whole-sale district agents distributed to retail dealers under the supervision of the district officers, and as a further check against profiteering, nearly 400 cheap grain shops were opened. Ten thousand tons of Burma rice were allotted every month to the Bombay Famine Relief Fund, which by the end of May had sold three lakhs of maunds of rice at or below cost price, and loans amounting to more than Rs 9 lakhs were advanced by the Government of Bombay to District Boards and Municipal Councils for the purpose of enabling them to open similar shops. Similar measures were taken in the Presidency Town. The distribution of rice to the retail shops was entrusted, at a fixed rate of commission, to a single firm; the prices at which the rice might be sold were fixed by the Director of Civil Supplies; and Inspecting officers were employed to see that these prices were not exceeded. In addition, the Bombay Merchants Cheap Grain Agency opened 23 cheap grain shops in the town and sold more than Rs 16 lakhs worth of rice at or below cost price.

Control in Madras

50. In Madras very similar methods were employed by Mr. Moir, the Director of Civil Supplies. The number of licenses was cut down. It was made a condition of the license that all rice imported under license should be held at the disposal of the Director of Civil Supplies. The importers' profit was cut down to annas 4 a bag, and licensees were required to deposit, as security for the fulfilment of the conditions of these licenses, a sum of Rs 5 per ton up to a maximum of Rs 1,000. In this way Mr. Moir was able to arrange to supply rice to up-country merchants nominated by the Collector and to Local Boards. In Madras city Messrs. Best and Company opened several retail shops where Burma rice was sold at cheap rates, and shops were also opened by the Madras Corporation, supervision being entrusted to an Emergency Committee presided over by the Commissioner of Police. In Madras there were other stores of rice to draw upon. Owing to the policy of inter-district control, a small reservoir of rice was maintained in the Kistna district, and supplies from this reservoir were carefully regulated. A Deputy Director of Civil Supplies was posted to Bezawada. Monthly allotments were made to specified districts, and supplies were arranged through the Deputy Director. A limit of price was fixed, and

tenders were called for. No attempt was made to finance the transactions. The licensed merchants were merely put in touch with the millers whose tenders had been accepted, and priority certificates were issued in the names of the millers as consignors and the licensed merchants as consignees. Over 50,000 tons were obtained in this way between May and October.

51. In Calcutta the problem was somewhat different in that until August the port was merely a distributing centre for rice required not in Bengal but in other provinces. As elsewhere the policy of relying on established shippers failed. It was a condition of their licenses that at first half, and subsequently the whole, of the rice imported under license should be held at the disposal of the Director of Civil Supplies, Bengal, but it was found impossible to ensure that the rice reached the provinces to which it had been allotted. There were incessant disputes between the importers and the up-country merchants. Frequent complaints were received that rice could not be obtained at the controlled prices, and there was reason to believe that much of the rice landed in Calcutta evaded control in the early months of the year. Licenses for import were granted accordingly only to a limited number of firms, and a system of distribution was devised by Mr. Townend, the Director of Civil Supplies, Bengal. Four Calcutta firms, Messrs. Becker Gray and Company, Messrs. Shaw Wallace and Company, Messrs. Amarchand Madhowjee and Company, and Messrs. Chaudhuri and Company, were appointed agents for distribution. These firms took over the rice from the licensed importers under Mr. Townend's instructions. Only merchants nominated by the Director of Civil Supplies in the importing province were allowed to import rice into that province, and they were placed by Mr. Townend in touch with one or other of the distributing agent firms. The rice was placed on rails by these firms, and the railway receipt was sent to the consignee through the District Officer. In this way it was ensured both that the rice was sent where it was required, and that the nominated merchants secured it at the control price. Large quantities of rice were supplied under this system to the United Provinces, Bihar and Orissa, and the Central Provinces, and, on the whole, the system worked extremely well. But it was open to certain disadvantages. In the first place, as invariably happens when control is applied, Burma rice steadily deteriorated in quality, and the licensed importers, secure in the knowledge that the heavy demands would compel us to take over all the rice brought over from Burma, embarrassed us by importing large quantities of inferior broken, or of broken of a quality not ordinarily eaten in Northern India. The demand for rice was so keen in the United Provinces and Bihar and Orissa that even these broken were accepted, though with reluctance at first, but the despatch of broken to the Central Provinces in response to indents for rice led to some troublesome disputes. Secondly, it was found necessary to guarantee the agent firms against loss. They were remunerated only by a small commission, and there was obvious danger that in the event of a sudden break in the demand for rice and a fall in prices they might be left with large stocks of rice on their hands which they could not sell except at a loss. It was decided to protect them against this risk. The guarantee applied only to rice taken over from importers under the instructions of the Director of Civil Supplies, Bengal, for supply to nominated merchants and left on the hands of the agent firms by the failure of the merchants actually to accept the rice. The extent of the guarantee was limited to the difference between the price paid for the rice and the price at which it could be sold in the open market, and it was further stipulated that the guarantee would not become operative unless one month's notice were given me together with full particulars of the stocks in respect of which the guarantee was claimed and unless the rice were held at my disposal during that period. The object of this stipulation, of course, was to enable me to dispose of the rice whether to any other province in India, or by export. The guarantee was first given up to September 1st, but at the request of the Government of Bengal it was extended first up to the 1st October and then up to the 1st November. In September and October the system was very useful in ensuring the prompt despatch of rice to the districts affected by the cyclone of September 24th, but it was not found necessary to take over all the rice imported, and the difference in price between controlled and uncontrolled

The distributing agent system in Calcutta.

Burma rice in Calcutta was so small in the second half of October that it was decided to terminate the system on November 1st. On this date nearly ten thousand tons of rice were left on the hands of the agent firms, and preliminary notice was given that the guarantee was claimed in respect of this quantity. It was considered, however, that it would be a useful lever on prices if this rice were retained for some time in Calcutta, and no effort was made to dispose of it to outside countries. By the middle of the month one firm, Messrs. Amarchand Madhowji and Company, had intimated that it did not propose to press its claim for the benefit of the guarantee, and of the stocks held by the other firms, all but 1500 tons had been sold locally without loss. It was left to the Government of Bengal to decide whether this small amount should be sold in Calcutta even at some sacrifice or whether it should be offered to export firms. The agent firms distributed in the manner explained more than 150,000 tons of rice and rendered at very small profit to themselves but at the expense of much time and trouble, very useful service. In particular I must mention Mr. C. F. Beadell of Messrs. Becker Gray and Company. This gentleman who was the first Director of Civil Supplies in Bengal was always most helpful.

IV.—Conclusion.

52. Put statistically, the main result achieved by the Government of India was that in the year ending 30th September 1919, they converted a normal net export of $1\frac{1}{2}$ million tons of grain, flour and pulse from India (excluding Burma) into a net import of rather more than 1,400,000 tons. They also did something to ensure an equitable distribution among deficit areas of such stocks of foodstuffs as were available in surplus provinces. The different Directors of Civil Supplies will no doubt report in detail how their respective provinces fared. Only the most general summary can be attempted here, written partly from the point of view of prices and partly from that of supplies.

53. To take the latter first, our chief anxiety first centred on the Bombay Presidency. This Presidency is never self-supporting in the matter of food-supplies, and Mr. Keatinge, the Director of Civil Supplies, an officer of great experience who is an acknowledged authority on all questions relating to rural economics, originally estimated that in order to keep the people alive, the Bombay Presidency would require in the year ending the 15th November 1919 a net import of more than 1,800,000 tons of foodgrains. At the beginning of April, prices were extraordinarily high and things were critical. Through no fault of his own, Major Story had lifted 100,000 tons less Burma rice than Mr. Gubbay had allotted for Bombay in the first three months of the year. On the other hand, it was a matter of urgent importance to stock the Konkan districts before with the advent of the monsoon communications were interrupted. There were ample stocks of Australian wheat in Bombay, but the demand was all for rice. On the urgent representations of the Bombay Government, a special allotment of 10,000 tons of Bengal rice was sanctioned for Bombay, but owing, it is reported, to reckless buying by the Bombay merchants in Bengal, this allotment while it did harm in Bengal was of no benefit to the Bombay Presidency. Burma rice saved the situation. Over 90,000 tons were poured into Bombay in April, and of this amount nearly 500,000 bags were despatched to the Konkan districts. In May nearly 160,000 tons were landed, and further large supplies followed in June. These measures, combined with favourable monsoon prospects, had the desired effect. In the second half of July, prices of foodgrains began to fall, and there was a sudden break in the demand for Burma rice. Bombay was over the worst of its troubles and ceased to be an anxiety. In May the situation in Bihar and Orissa became disquieting. In March the Local Government in a closely reasoned letter had given reasons why the province could not be treated as a surplus area, and had estimated that 345,000 tons of foodstuffs would be required in the six months ending the 30th September. Railway and other difficulties had prevented Mr. Gubbay from arranging for the monthly supply of the 59,000 tons reported by the Local Government to be the minimum required, and in May there was a sharp

rise of prices. The position was discussed at Ranchi with the Local Government, and the critical months of June and July were tided over by increased allotments of Bengal and Burma rice. In July rice prices showed a tendency to fall, and in August, with the maize crop beginning to ripen and the autumn rice crop promising well, there was a general improvement in prospects, though the demand for Burma rice lasted well on into September. But the necessity of providing large supplies of Bengal rice for Bihar and Orissa reacted on Bengal. At the end of 1918 it was known that there were large surplus stocks of rice in Bengal, and in the early months of 1919 these stocks were freely drawn upon for other provinces. In May there was a sharp rise in prices. The allotments on the province for June, though increased for Bihar and Orissa, were cut down materially in the aggregate, and further reductions were made in July and August. Small supplies of Burma rice were also placed at the disposal of the Director of Civil Supplies, Bengal, in May, June and July for the purpose of testing the market and ascertaining whether there was any real demand for additional supplies of rice. These measures were at first successful. The average retail price of common rice remained steady in June and by the 15th July, though the average price had risen, it was still lower than in any other important province. Moreover, there was little demand for Burma rice, and in the beginning of July the Director of Civil Supplies reported that the cheap grain shops opened in Calcutta by the Municipal Corporation for the sale of Burma rice had definitely proved a failure. In August, however, a crisis arose. The trouble began with a temporary shortage of stocks in certain districts of Eastern Bengal. The merchants from these districts scoured the country for rice, and a general panic followed in the Bengal markets. Prices rose rapidly, and grain looting followed in the beginning of September in the Burdwan Division. Arrangements were at once made to pour in supplies of Burma rice into Bengal. 44,000 tons of rice from Burma were shipped to Calcutta in the first fortnight of September and 15,000 tons to Chittagong. By the third week of September the tide had definitely been turned, and the price of common rice fell in that week in more than thirty reporting stations. But on the 24th September a disastrous cyclone devastated Eastern Bengal and caused a distinct set back. The first reports of damage to standing crops turned out to be exaggerated, but stocks of food were destroyed, flats were sunk, and communications were interrupted. A brisk demand for Burma rice sprang up from the affected districts, and it was necessary to arrange for imports on a large scale right up to the end of October. Between the 31st August and the 31st October 149,007 tons of rice were despatched to Calcutta and 40,851 tons to Chittagong. By the end of the latter month the demand had ceased, and though prices were still high they were falling steadily. There was no sudden crisis in Madras, but there were more grain riots in the Presidency than in any other province, and prices reached unprecedented heights. Mr. Gubbay had promised an allotment of 30,000 tons of Burma rice a month for the Presidency including Travancore, but as the tonnage position improved, we were able to make larger supplies available. In arranging shipments to Madras ports we had always to take into account not only the capacity of the ports but also railway facilities, but in the ten months ending 31st October 455,119 tons of rice were shipped to Madras ports from which Travancore and Mysore were fed as well as the Presidency proper. There were stores of rice also available in the Kistna district, and additional supplies were also made available from Bengal. In spite, however, of these large imports, we were not able to prevent the price of rice from rising slowly till September, and much hardship was caused by the extremely high prices prevailing for jawar, bajra and ragi. At the end of July, the prospects of the season were very favourable, and it was hoped that August would see a distinct fall in prices. But a prolonged break in the monsoon in that month caused a set back, especially in the Ceded Districts, and it was not till October that the demand for Burma rice broke, and prices began seriously to fall. The control worked smoothly in the United Provinces and the Central Provinces. In both provinces, particularly the latter, prices were very high but they were fairly stable, and both provinces stood up to them in remarkable fashion. The Punjab was the granary of India in respect of wheat and gram, and the main object of the control was so to regulate export as to prevent stocks from being

Results of the control.

Supplies in the different provinces.

rapidly exhausted. The control was so far successful that prices in the Punjab were kept materially lower than those in other provinces.

Rise in prices.
General causes.

54. I do not propose to deal at any length with the general causes which have operated to raise prices in India since the war began. The rise has not been confined to India of course, and it is a commonplace that it is mainly due partly to the facts not only that a large proportion of those ordinarily engaged in production in the principal European countries were called up for military service but also that the energies of the rest were concentrated mainly on producing commodities required for the maintenance and supply of the armies in the field, and partly to the simultaneous creation of a huge additional volume of credit and currency for the purpose of financing the war. The cost of producing almost all the ordinary necessities of life naturally increased, and the increase in the cost of living led to demands for higher wages. These higher wages increased still further the cost of production, and a further rise in price levels followed. India has to some extent been protected from the operation of these factors. Shortage of freight limited the demands for her raw materials in 1917 and 1918. Exchange difficulties had the same effect, and in the last year the export of all foodstuffs has been prohibited. But the exigencies of the war forced the Government of India to make large additions to their rupee and note circulation with the result that the purchasing power of money declined, and though India was to some extent sheltered from the full operation of the causes which led to the great increase of prices in other countries, it was not to be expected that she could remain unaffected by the general upheaval in price levels which has taken place throughout the civilised world since the war began. The increase in the price of imported articles naturally reacted on the price of commodities produced in the country.

Causes of rise in
prices of
foodgrains in
India.

55. But I am concerned principally with the prices of foodstuffs, and I append a table showing wholesale prices of certain foodgrains in India together with index numbers. The figures are based on statistics supplied by the Director of Statistics. The quotations are wholesale price quotations and were compiled on a uniform basis, *viz.*, the average price prevailing in January and July of each year. Information regarding the markets selected will be found in appendix 4. I have included the quotations for the year 1900, a year of severe and widespread famine, in order that they may be compared with those of 1919.

Wholesale prices of certain foodgrains in India.

Average prices.

Article.	Rate per.	1900.	1910-1913.	1914-1917.	1918.	1919.
		Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Wheat	Maund	3 9 0	3 7 0	4 5 1	5 0 5	7 1 4
Barley	Do.	2 9 11	2 2 2	2 14 6	2 15 4	4 11 2
Rangoon rice	Cwt.	3 12 6	5 0 9	4 4 5	3 8 9	5 5 0
Country rice	Maund	3 7 9	4 6 2	5 2 5	4 3 9	7 7 7
Jowar	Do.	3 12 1	2 9 7	2 12 2	4 6 2	7 10 10
Bajra	Do.	3 8 2	2 14 2	3 3 10	4 9 4	8 5 1
Maize	Do.	3 3 0	2 4 6	3 1 10	3 5 11	5 8 3
Ragi	Do.	2 9 6	2 14 1	3 0 11	3 4 0	7 5 0
Gram	Do.	3 1 4	2 4 10	3 8 2	3 4 8	5 15 3

Index Numbers.

(Average of 1900-1909=100).

Article.	1900.	1910-1913.	1914-1917.	1918.	1919.
Wheat	105	102	130	149	211
Barley	120	98	133	136	215
Rangoon rice	94	125	103	88	191
Country rice	83	104	123	101	178
Jowar	117	102	108	171	300
Bajra	136	111	125	177	321
Maize	131	94	128	189	227
Ragi	109	121	129	137	309
Gram	117	87	133	125	223
Average	115	105	124	136	235

The above tables, I think, fully bear out what has been said in the previous paragraph. Prices of foodgrains rose in the four years ending 1917, no doubt owing to the operation of the general causes to which I have referred. But the rise was comparatively small, and India escaped lightly in the first three years of the war. In 1918 the rise in price levels continued. It was accentuated by the sharp increase in the price of jawar and bajra following on the failure of those crops in 1917-18. Moderating factors were a slump in rice prices in Burma, Bengal and Bihar and Orissa, due in the first case to shortage of freight, and in the last two to shortage of railway wagons. Then came the crowning disaster of the widespread crop failure of 1918-19, and prices in 1919 rose by 73 per cent. compared with the previous year.

56. The above prices are the average of prices recorded at a few selected markets which are mostly big towns. In appendix V, I give a series of statements showing the trend of retail prices of different foodgrains in India since July 1913. The statistics represent the average of the retail prices recorded at numerous markets in each province and published fortnightly in the *Gazette of India*, and have kindly been furnished by Mr. Findlay Shirras. I have selected the prices prevailing in July 1913 as the pre-war level, since 1913-14 was a scarcity year in Northern and Central India, and in July 1914 there were still 150,000 people on relief in the United Provinces. The average index numbers given in the tables have not been properly weighted, and are merely a rough guide to the average rise in retail prices. I do not propose to comment at any length on these figures. They indicate clearly the extraordinary heights to which prices of foodgrains have risen in India in the past year. Wheat prices have risen more than those of rice over the whole period, but in the last year rice rose in price while the price of wheat slightly declined. The prices given, it may be noted, are those of 'common rice' in which term Burma rice is not included in most provinces. The biggest rise took place in the price of jowar and bajra, no doubt owing to the fact that these two crops failed in 1917-18 as well as in 1918-19. The control tended to equalise prices in the different provinces. For instance, in the rice-eating provinces (excluding Burma) prices of rice in September 1918 varied between a maximum of 4 seers and 7 chittaks per rupee in Bombay and a minimum of 9 seers per rupee in Assam. In September 1919 the variations were much smaller, the maximum being 4 seers and 2 chittaks in Madras, and the minimum 5 seers 15 chittaks in Assam. The control also tended to stabilise prices in deficit provinces, but in the country as a whole Government were not able to prevent prices from rising to heights which never before had been reached.

57. These high prices have caused the greatest distress and embarrassment in India. They have pressed most hardly on the poorer classes and on people living on small fixed incomes in the towns, but the effect of them has been felt by every section of the community as well as by Government and by other large employers of labour. It is small comfort to the Indian to be told that on the whole he has escaped more lightly than the people in most other countries. For instance, in Japan in July 1919 the wholesale prices of rice in Tokyo were 305 per cent. higher than in October 1910. But the fact which is painfully brought home to the Indian is that prices in 1919, as the table in the margin

Grain.	Previous.	Maximum.	1919 price.
	Year.	Rs. A. P.	Rs. A. P.
Wheat	1915	4 15 0	7 1 4
Barley	1908	3 5 9	4 11 2
Rice (country)	1908	5 12 2	7 7 7
Jowar	1900	3 12 1	7 10 10
Bajra	1908	3 10 6	8 5 1
Maize	1908	4 2 0	5 8 3
Ragi	1909	3 5 9	7 5 0
Gram	1915	4 1 5	5 15 3

Note.—1918 excluded. Prices given are average wholesale prices prevailing in selected markets in January and July of each year.

shows, have been considerably higher than ever before. High prices have promoted crime, unrest and discontent, and there has been a tendency to lay them at the door of Government. No one would pretend that the control has been perfect or that it has benefited all provinces in the same degree. It would have suited Bengal best if we had closed down exports of rice to all other provinces, but the adjoining provinces would have been

gravely embarrassed. On the other hand, if we had consulted only the interests of the wealthy province of Bombay, we should have controlled only Burma rice and have allowed all other foodgrains to move freely within India. But in that case prices would have been driven up in less wealthy provinces. But it is hoped that this report will show that the rise of prices in India in 1919 was due to causes beyond control by any Government and that it will place the foodstuffs problem in its proper perspective. The crop failure of 1918-19 was one of the worst on record. It was not only severe, but it affected every province in a greater or less degree, and moreover the failure of the rains was aggravated in most provinces by a disastrous epidemic of influenza just when the sowing of the rabi crop should have been proceeding. In a normal year, the total production of foodstuffs in India, including Native States, may be estimated at somewhere near 80 million tons. Last year the loss of production due to the failure of the rains may be put, at a conservative estimate, at not less than 20 million tons. This crop failure moreover followed on a failure of the jowar and bajra crops in the previous year; it came at a time when prices had already begun to rise under the pressure of world causes; and the difficulties of the situation were increased by the fact that the Railways were not able properly to perform their normal functions of distribution. Whatever measures of control Government might take, they could only palliate these difficulties. All this year, India has been drawing largely on reserve stocks of food grains, and it was inevitable that prices should rise and that much hardship and distress should be caused. It was foreseen from the beginning that nothing could prevent this rise of prices, and as I have already said, the main preoccupation of the Foodstuffs Commissioner has always been with the question of supplies, not with that of prices. Literally we were afraid that in the middle of the year there would not be enough food to go round in some provinces, and the people of India have much to be thankful for. Had this year's monsoon again failed, instead of being on the whole exceptionally good, nothing could have saved India from appalling disaster. Reserve stocks of food must now be very depleted, and had there been this year, as there was last, a deficiency of production amounting to 20 million tons, it is impossible to see how the deficiency could have been made good. Now, of course, the problem has changed. The agricultural outlook is excellent almost everywhere in India, and all immediate difficulties as regards supplies are at an end. The Railway position has also improved, and the problem is now purely one of prices. The prices of *kharif* grains has already begun to fall owing to the harvest, and prices of rice are beginning to show a downward tendency. But reserve stocks must be so low that it will probably be a long time before grain becomes really cheap, and it is doubtful whether prices will ever return to their pre-war level. The Government of India have decided to keep on, for some time longer, their embargo on the export of foodgrains from India, and they propose to go as far as they safely can in removing all restrictions on the movement of foodgrains within India. But there are obvious dangers in the former measure. If the embargo is maintained too long, it will tend to drive the cultivator to grow other crops of which the export is not prohibited, and the safety margin afforded by the surplus foodgrains which ordinarily are exported will disappear. Regarded purely as a temporary measure, however, the continuance of the policy of the ring fence should help to bring down prices in India, and even when the fence is removed, the rising exchange should assist in the same direction. For the rest we can trust only to time and good harvests and to the restoration of more normal conditions not only in India but in the world generally.

58. There is one other remark which I must make before I close this report. We have just passed through the worst crop failure India has experienced since the famine of 1899-01. The crop failure was complicated by other factors to which I need not refer again, and prices of food grains were 100 per cent. higher than in 1900. Nevertheless, nothing has impressed me more in my numerous tours round India than the comparative absence of visible signs of distress, and the apparent ease with which the people stood up to the unprecedented level of prices. The same fact is commented upon by more than one Director of Agriculture in the Season and Crop Reports for the year 1918-19. Prices were nowhere higher than in the Central Provinces, yet the report records that distress was nowhere really serious or severe and that

the agricultural population had come through a period of anxiety extremely well. The report for the United Provinces bears similar testimony. The agriculturists 'weathered the season without much apparent difficulty' and 'over a great part of the provinces,' it is said 'a degree of protection seems to have been attained which removes the worst danger of a failure of the rains.' Famine and scarcity were declared in numerous areas, and all the usual measures were taken. It would not have been surprising if the circumstances of this disastrous year had been reflected in the famine returns, but as a matter of fact, the numbers on relief were never very large. In 1900 the maximum number on relief at any one time was 6,332,211; in 1919 it was 565,348. In the five war years, rupees were absorbed in India at the rate of 22.08 crores per annum compared with an average of 8.78 crores in the preceding quinquennium. As pointed out by the Hon'ble Mr. Mant in his speech in the Legislative Council on the 17th September, the balance of trade, as deduced from the excess of exports of merchandise over imports *minus* private imports of treasure and council bills, was against India in the five years ending 1913-14 to the extent of 23 lakhs per annum; in the five years of war the balance in India's favour averaged 20.90 crores per annum. These figures point to an increase of wealth in India, and the history of the year which is just over indicates that no small portion of this wealth has passed into the hands of the cultivator. At any rate the most hopeful feature of a year, which otherwise was disastrous, is the clear evidence it affords of India's increasing power to withstand crop failure and famine prices.

59. This report has been written entirely from the point of view of the Foodstuffs Commissioner. The Directors of Civil Supplies in the different provinces were not my subordinate officers, and it would be impertinence on my part to comment on their work. But I should like to make it clear that the burden and heat of the day have been borne by them and by District Officers, ably assisted in many provinces by various non-official and semi-official organisations. Mr. Gubbay, I am aware, received the greatest assistance from Mr. Hullah, the Deputy Foodstuffs Commissioner, and when the latter was promoted, his place was ably filled by Mr. Hardy. Mr. Green, the Superintendent of the Foodstuffs Branch, has been most useful. His work, like that of the Branch generally, was at times very heavy, and it was always cheerfully and satisfactorily done.

C. A. INNES.

The 16th November 1919.

Appendix I—(Paragraph 9).

Exports of Jowar and Bajra, Gram, Maize, Barley, Wheat and Rice, during the ten years 1909 to October 1918.

(In tons).

Year.	Jowar and Bajra.	Gram.	Maize.	Barley.	Wheat.	Rice.
1909-10 . . .	41,317	53,497	...	22,444	1,050,574	1,919,755
1910-11 . . .	25,953	45,451	...	13,346	1,266,150	2,365,141
1911-12 . . .	22,308	346,742	...	292,428	1,361,166	2,568,607
1912-13 . . .	31,891	144,919	26,531	615,177	1,660,187	2,716,220
1913-14 . . .	84,294	69,597	2,881	190,409	1,202,205	2,419,862
1914-15 . . .	105,208	23,298	1,429	29,317	706,362	1,538,290
1915-16 . . .	41,840	32,494	4,066	165,757	652,878	1,339,789
1916-17 . . .	36,044	38,097	24,873	209,446	733,663	1,688,978
1917-18 . . .	13,988	326,459	90,954	358,395	1,432,563	1,939,450
April to October 1918	5,266	259,151	13,405	197,745	485,452	1,416,572
Average 1909-10—1913-14.	41,163	132,041	...	226,759	1,308,056	2,397,917
1914-15—1918 (October)	44,966	151,000	...	213,480	891,320	1,738,462

Appendix II—(Paragraph 9).

Comparison of Yield of Certain Food Crops with Exports.

RICE.			
Period.	Yield. (000's of tons.)	Export. (000's of tons.)	Balance available for consumption in India. (000's of tons.)
1910-11 to 1914-15 (average)	28,517	2,322	26,195
1915-16	32,831	1,340	31,491
1916-17	34,791	1,589	33,202
1917-18	35,952	1,939	34,013

WHEAT.			
Period.	Yield. (000's of tons.)	Export. (000's of tons.)	Balance available for consumption in India. (000's of tons.)
1910-11 to 1914-15 (average)	9,657	1,116 (1)	8,541
1915-16	8,652	734	7,918
1916-17	10,234	1,433	8,801
1917-18	10,162	485 (2)	9,677

(1) Average of exports in five years ending 1915-16. Wheat is a rabi crop, and exports are made against the crop of the preceding year.

(2) 6 months' figures only.

GRAM.			
Year.	Yield.	Export in succeeding year.	Balance.
1911-12	4,402	115	4,257
1912-13	3,376	70	3,306
1913-14	1,937	23	1,914
1914-15	3,541	32	3,809
1915-16	3,428	38	3,390
1916-17	4,216	326	3,890
1917-18	4,400	259 (1)	4,141

(1) 6 months' figures only.

BARLEY.			
Year	Yield.	Export in succeeding year.	Balance.
1913-14	2,681	29	2,652
1914-15	3,061	166	2,895
1915-16	3,164	209	2,955
1916-17	3,331	358	2,973
1917-18	3,328	198 (1)	3,130

(1) 6 months' figures only.

MAIZE.			
Year.	Yield. (000's of tons.)	Export. (000's of tons.)	Balance available for consumption in India. (000's of tons.)
1912-13	2,211	27	2,184
1913-14	2,084	3	2,081
1914-15	2,682	1	2,681
1915-16	2,502	4	2,498
1916-17	2,344	25	2,319
1917-18	2,317	91	2,226

Appendix III—(Paragraph 16).

Rationing Scheme of rice.

Country to which export of rice is permitted.	Port from which export is permitted.	Quantity of rice allowed.	Period during which the quantity stated in column 3 should be exported.	Quantity shipped from 1st January to October 1919.	REMARKS.
(1)	(2)	(3)	(4)	(5)	(6)
South Africa	Calcutta	Tons. 9,000	January to December 1919.	Tons. 6,680	
BRITISH WEST INDIES.					
Trinidad	Do.	6,000	Ditto	3,940	Balance of allotment was cancelled.
Jamaica	Do.	200			
Barbados	Do.	1,740			
China (Hong Kong)	Do.	3,750	Ditto	Nil	Allotment transferred for shipment from Burma.
Turkey Red Sea (Jeddah)	Do.	2,000 monthly [or 18,000 tons in all.]	January to September 1919.	9,451	Balance transferred for shipment from Bombay.
Muscat and Oman	Do.	2,600	January to December 1919.	Nil	Allotment transferred for shipment from Karachi.
Other Arabian States (Koweit).	Do.	4,000	Ditto	3,769	Balance transferred for shipment from Karachi.
Bahrain Islands	Do.	4,000	Ditto	4,038	
Ceylon	Do.	30,000	Ditto	35,559	* A extras and other Bur- ma broken.
		1,000*			
		31,000			
Aden and Dependencies	Bombay	12,000	Ditto		
		Distributed	as under:—		
		3,000†	October 1918 to March 1919.	8,611	† Inclusive of British Somaliland.
		3,000	April to June 1919		
		2,700‡	July to September 1919		
		3,000‡	October to December 1919.		‡ Exclusive of British Somaliland.
Mauritius and Depen- dencies.	Do.	1,200	October 1918 to March 1919.	279	
Bahrain Islands	Do.	5,500	Ditto		
		900	April to June 1919	4,425	
		900	July to September 1919		
Zanzibar and Pemba	Do.	5,000	October 1918 to March 1919.	2,983	
East Africa Protectorate	Do.	3,300	October 1918 to March 1919.		
		650	April to June 1919	2,262	§ Inclusive of 650 tons allotted during the quarter July to September and 450 tons sanctioned as a special case.
		1,100§	July to September 1919.		
		650	October to December 1919		
Seychelles	Do.	800	October 1918 to March 1919.	873	Of this 117 tons were allowed to be shipped from Calcutta instead of from Bombay.
		320	April to June 1919		
		900	July to September 1919		
		300	October to December 1919.		

Rationing Scheme of rice—contd.

Country to which export of rice is permitted.	Port from which export is permitted.	Quantity of rice allowed.	Period during which the quantity stated in column 3 should be exported.	Quantity shipped from 1st January to October 1919.	REMARKS.
(1)	(2)	(3)	(4)	(5)	(6)
		Tons.		Tons.	
Somaliland, (British)	Bombay	400	October 1918 to March 1919.	741	*Allotment for the quarter April to June 1919 for British Somaliland was included in the allotment for Aden.
		300*	July to September 1919		
		300	October to December 1919.		
Portuguese East Africa	Do.	2,400	October 1918 to March 1919.	1,118	
		400	April to June 1919		
		400	July to September 1919		
		400	October to December 1919.		
German East Africa	Do.	1,000	October 1918 to March 1919.	1,134	
		1,050	April to June 1919		
		1,050	July to September 1919		
		1,050	October to December 1919.		
Italian East Africa	Do.	200	October 1918 to March 1919.	Fully shipped.	
Natal and Cape Colony	Do.	1,800	Ditto	197	
Persia	Do.	3,100	October 1918 to March 1919.	3,604	
		1,800	April to June 1919		
		1,200	July to September 1919.		
		700	October to December 1919.		
Turkey-Asiatic, Red Sea, (Jeddah).	Do.	4,100	October 1918 to March 1919.	3,350	†Transferred from Calcutta for shipment from Bombay.
		8,500†	January to September 1919.		
Turkey-Asiatic, Persian Gulf, (Basrah)	Do.	4,800	Ditto	1,788	‡Transferred for shipment from Karachi.
		750	April to June 1919		
		375	July to September 1919.		
		500‡	October to December 1919.		
Muscat and Oman	Do.	1,600	October 1918 to March 1919.	3,782	
		1,500	April to June 1919		
		700	July to September 1919		
		700	October to December 1919.		
Other States in Arabia (Koweit).	Do.	2,700	October 1918 to March 1919.	923	
		650	April to June 1919		
		650	July to September 1919		

Rationing Scheme of rice—concl'd.

Country to which export of rice is permitted.	Port from which export is permitted.	Quantity of rice allowed.	Period during which the quantity stated in column 3 should be exported.	Quantity shipped from 1st January to October 1919.	REMARKS.
(1)	(2)	(3)	(4)	(5)	(6)
		Tons.		Tons.	
French Somaliland	Bombay	50	April to June 1919	50	
Ceylon	Ditto	6,100	October to December 1919.	Nil.	
Ceylon	Barma ports	160,000	January to December 1919.	152,334	
		10,000	Ditto		
		1,250	Ditto		
		35,000	Ditto		
		206,250			
Straits Settlements and Federated Malay States.	Ditto	100,000	January to December 1919.	99,119	
		10,000	January 1919. (Special allotment)		
		110,000			
Zanzibar and Pemba	Ditto	6,000	January to December 1919.	6,204	
Egypt.	Ditto	10,500	Ditto.	Nil.	Allotment cancelled as no rice required by Egypt.
Turkey—Asiatic, Persian Gulf (Basrah).	Ditto	2,550	Ditto.	Nil.	
Muscat and Oman	Ditto	4,800	Ditto.	Nil.	
Bahrein Islands	Ditto	1,000	Ditto.	Nil.	
Mauritius and Dependencies.	Ditto	30,000	Ditto.	29,987	
Fiji and Pacific Islands	Ditto	2,000	February to September 1919.	2,000	

Appendix IV—(Paragraph 55).

List of Articles and Markets Selected.

Article.	Market Selected.
Wheat	Karachi, Amritsar, Delhi, Cawnpore, Jubbulpore, Patna, Bombay and Calcutta.
Barley	Cawnpore, Patna, Lahore.
Rangoon rice, (Ngatsin)	Rangoon.
Country rice	Calcutta, Sylhet, Patna, Fyzabad and Madras.
Jawar	Cawnpore, Ahmednagar, Nagpur and Bellary.
Bajra	Cawnpore, Rawalpindi, Ahmednagar, Coimbatore.
Maize	Muzaffarpur, Benares, Lahore.
Ragi	Salem.
Gram	Muzaffarpur, Cawnpore, Lahore.

Appendix V—(Paragraph 56).

Retail prices (with Index Numbers) of food grains in certain provinces in India.

(1) RICE COMMON.

Province.	Rate per.	AT THE END OF										
		July 1913.	July 1914.	August 1915.	August 1916.	December 1917.	April 1918.	September 1918.	October 1918.	January 1919.	May 1919.	September 1919.
		s. c.	s. c.	s. c.	s. c.	s. c.	s. c.	s. c.	s. c.	s. c.	s. c.	s. c.
Bengal	Rupee	7 0	6 14	6 6	7 0	10 13	11 8½	7 11	7 2	6 15½	5 3½	4 6
Bihar and Orissa	"	7 9	7 10	6 14	8 0	11 0	11 2½	7 2	6 8	6 8½	4 11½	4 15
Madras	"	6 13	7 5	8 4	7 7	7 2	7 5	6 5½	5 11	4 14½	4 12	4 2
Burma	"	9 10	10 3½	9 0	11 3	12 12	14 8	9 2	9 1	9 14½	8 9½	7 14
United Provinces	"	7 9	7 1	7 0	7 10	8 12	7 8	5 8½	5 7	5 2	4 13	4 11
Central Provinces and Berar	"	8 6½	7 9	7 15½	8 15½	8 9	8 1	5 15	5 3	5 0½	4 5½	5 1
Assam	"	8 0	8 3	7 0	7 0	11 0	12 9	9 0	9 8	9 2½	6 12	5 15
Bombay	"	7 0	7 0½	7 3	6 15	6 10	5 8	4 7	4 6	4 5½	4 8	5 0
Sind and Baluchistan	"	7 0	6 0	6 14	6 10	5 13	5 0	3 14	3 8	3 8	3 6	3 15
Punjab	"	7 0	7 0	6 4	7 0	7 0	6 1	5 0	4 8	4 4	4 0½	4 11

Index Numbers.

(July 1913=100).

Province.	July 1913.	July 1914.	August 1915.	August 1916.	December 1917.	April 1918.	September 1918.	October 1918.	January 1919.	May 1919.	September 1919.
Bengal	100	102	110	100	65	61	91	93	100	134	100
Bihar and Orissa	100	99	110	95	69	68	106	116	116	160	153
Madras	100	93	83	92	96	93	107	120	133	143	165
Burma	100	94	107	86	75	66	105	106	97	112	122
United Provinces	100	107	108	99	86	101	137	139	143	157	161
Central Provinces and Berar	100	111	105	94	98	104	143	162	167	194	166
Assam	100	98	114	114	73	64	89	84	88	119	135
Bombay	100	100	97	101	106	127	153	160	161	156	140
Average	100	100	104	96	83	85	117	123	127	147	150

Retail prices (with Index Numbers) of food grains in certain provinces in India—contd.

(2) WHEAT.

Province.	Rate per.	AT THE END OF										
		July 1913.	July 1914.	August 1915.	August 1916.	December 1917.	April 1918.	September 1918.	October 1918.	January 1919.	May 1919.	September 1919.
Punjab	Rupee.	s. c. 12 0	s. c. 11 12	s. c. 9 0	s. c. 10 8	s. c. 8 2	s. c. 9 0	s. c. 6 8	s. c. 6 6	s. c. 5 12	s. c. 6 12	s. c. 7 0
United Provinces	"	11 8	9 8	8 8	10 0	8 4	9 8	5 9	6 12	5 7	5 14	5 12
Central Provinces and Berar	"	11 9½	9 0	8 8	10 2	7 12	7 12	5 2	4 15	4 12	4 12	5 7
Bombay	"	8 13	8 0	7 7	8 10½	6 8	5 12	4 0	4 0	3 11½	4 4	4 6
Bihar and Orissa	"	10 8	9 6	7 10	9 8	8 2	9 0	6 0	6 0	5 8	5 0	5 7
North-West Frontier Province	"	11 4	11 1	9 1	10 0	8 2	7 10	7 13	7 4	6 9	7 3	6 15
Sind and Baluchistan	"	9 13½	9 12	8 10	8 12	6 8	7 0	5 4	5 2	4 8	4 12	5 7

Index Numbers.

(July 1913=100.)

Province.	July 1913.	July 1914.	August 1915.	August 1916.	December 1917.	April 1918.	September 1918.	October 1918.	January 1919.	May 1919.	September 1919.
Punjab	100	102	133	114	148	133	185	185	209	178	171
United Provinces	100	121	136	115	139	121	207	188	211	196	200
Central Provinces and Berar	100	129	136	115	150	150	226	235	244	244	213
Bombay	100	110	118	102	136	153	220	220	237	207	201
Bihar and Orissa	100	112	138	111	129	117	175	175	191	210	198
North-West Frontier Province	100	102	124	112	138	148	144	155	171	157	161
Sind and Baluchistan	100	101	114	113	152	141	188	192	219	208	189
Average	100	111	128	112	142	138	192	193	212	200	189

(3) BARLEY.

Province.	Rate per.	AT THE END OF										
		July 1913.	July 1914.	August 1915.	August 1916.	December 1917.	April 1918.	September 1918.	October 1918.	January 1919.	May 1919.	September 1919.
United Provinces	Rupee.	s. c. 16 8	s. c. 12 6	s. c. 12 4	s. c. 13 5½	s. c. 13 2	s. c. 14 8	s. c. 8 0	s. c. 8 0	s. c. 7 0	s. c. 8 0	s. c. 7 11
Bihar and Orissa	"	14 13	12 8	11 8	13 12	16 0	16 0	11 0	10 0	8 0	7 0	7 1
Punjab	"	16 0	15 0	13 0	13 0	11 8	13 0	9 8	8 8	8 0	8 14	9 0½
North-West Frontier Province	"	16 0	19 0	14 5	15 4	13 0	11 6	11 0	10 0	10 0	11 13	11 4

Retail prices (with Index Numbers) of food grains in certain Provinces in India—contd.

(3) BARLEY—concl'd.

Index Numbers.

(July 1913=100.)

Province.	July 1913.	July 1914.	August 1915.	August 1916.	December 1917.	April 1918.	September 1918.	October 1918.	January 1919.	May 1919.	September 1919.
United Provinces	100	133	135	124	126	114	206	206	236	206	215
Bihar and Orissa	100	118	129	108	93	93	135	148	185	212	210
Punjab	100	107	123	123	139	123	168	188	200	180	178
North-West Frontier Province	100	84	112	105	123	141	145	160	160	136	142
Average	100	111	115	115	120	118	163	175	195	183	186

(4) JAWAR.

Province.	Rate per.	AT THE END OF										
		July 1913.	July 1914.	August 1915.	August 1916.	December 1917.	April 1918.	September 1918.	October 1918.	January 1919.	May 1919.	September 1919.
Bombay	Rupee.	s. c. 11 10½	s. c. 11 5	s. c. 11 4½	s. c. 13 0	s. c. 9 2	s. c. 6 7½	s. c. 4 7	s. c. 3 12½	s. c. 3 15½	s. c. 4 7½	s. c. 4 15
Madras	"	12 9	13 8	13 9	13 0	9 13	9 9½	7 15	7 8	6 14	6 2	5 5
Central Provinces and Berar	"	13 0	12 0	13 0	19 0	10 6½	7 0	5 6	4 7½	5 6	4 12½	6 2
United Provinces	"	16 0	9 8	11 0	14 4	12 12	11 8	6 12	7 4	6 8½	5 2	6 7
Punjab	"	14 4	10 0	10 0	13 12	11 0	7 0	5 0	8 0	5 4	4 0	8 12½
Sind and Baluchistan	"	13 0	11 4	11 0	11 4	8 15½	8 8	6 0	5 12	4 2	4 8	6 9
North-West Frontier Province	"	12 4½	13 12	11 15½	13 1½	13 12	8 3	...	...	6 4	5 12	...

Index Numbers.

(JULY 1913=100.)

Province.	July 1913.	July 1914.	August 1915.	August 1916.	December 1917.	April 1918.	September 1918.	October 1918.	January 1919.	May 1919.	September 1919.
Bombay	100	103	103	90	128	180	263	308	294	261	235
Madras	100	98	98	97	128	181	156	167	133	205	235
Central Provinces and Berar	100	108	100	68	125	186	242	291	243	272	212
United Provinces	100	163	145	112	125	140	237	221	245	312	243
Punjab	100	142	142	104	130	204	285	178	271	356	169
Average	100	123	117	94	127	163	237	233	247	281	219

Retail prices (with Index Numbers) of food grains in certain Provinces in India.—contd.

(5) BAJRA.

Province.	Rate per.	AT THE END OF.										
		July 1913.	July 1914.	August 1915.	August 1916.	December 1917.	April 1918.	September 1918.	October 1918.	January 1919.	May 1919.	September 1919.
		s. c.	s. c.	s. c.	s. c.	s. c.	s. c.	s. c.	s. c.	s. c.	s. c.	s. c.
Bombay . . .	Rupee	10 15	9 10	9 12	10 12	8 0	5 14	3 10	3 8	3 5	3 14	4 13
Madras . . .	"	10 4	10 15	12 5	11 13	10 15	11 7	7 14	7 9	6 15½	5 8	6 2
Punjab . . .	"	12 0	10 0	9 7	10 0	10 8	9 12	5 12	6 4	4 14	4 3	7 5
United Provinces	"	15 0	9 14	9 0	12 0	11 3	8 12	6 0	6 8	5 8	5 0	6 1
Sind and Baluchistan.	"	12 0	9 14	9 8	10 6	8 4	6 15½	5 8	5 0	4 1	4 3½	5 5½
North-West Frontier Province.	"	10 13	10 8	11 13	10 10	12 0	11 2	7 8	7 4	6 1	5 7	7 7

Index Numbers.

(JULY 1913=100).

Province.	July 1913.	July 1914.	August 1915.	August 1916.	December 1917.	April 1918.	September 1918.	October 1918.	January 1919.	May 1919.	September 1919.
Bombay . . .	100	114	112	102	137	186	302	312	330	232	227
Madras . . .	100	94	83	87	94	99	130	136	147	186	167
Punjab . . .	100	120	127	120	114	123	209	192	246	287	164
United Provinces	100	152	167	125	134	171	250	231	273	300	247
Average . . .	100	120	122	108	120	142	223	218	249	264	201

(6) RAGI.

Province.	Rate per.	AT THE END OF.										
		July 1913.	July 1914.	August 1915.	August 1916.	December 1917.	April 1918.	September 1918.	October 1918.	January 1919.	May 1919.	September 1919.
		s. c.	s. c.	s. c.	s. c.	s. c.	s. c.	s. c.	s. c.	s. c.	s. c.	s. c.
Madras . . .	Rupee	12 10	12 14	14 1	13 5½	12 12	11 14	9 7	9 4	7 14	6 3	6 1
Bihar and Orissa	"	16 0	12 6	12 8	14 8	20 7	18 0	13 14	11 0	9 7	7 8	8 10
Bombay . . .	"	11 8½	12 8	11 0	13 4	12 9	9 7	5 7½	6 0	5 8	5 3	5 13
United Provinces	"	14 8	9 8	11 4	12 0	14 0	10 0	8 0	7 8	6 0	5 5½	7 3

Retail prices (with Index Numbers) of food grains in certain provinces in India—contd.

(6) RAGI—concluded.

Index Numbers

(July 1913=100)

Province.	July 1913.	July 1914.	August 1915.	August 1916.	December 1917.	April 1918.	September 1918.	October 1918.	January 1919.	May 1919.	September 1919.
Madras . . .	100	98	90	95	99	106	134	136	160	204	208
Bihar and Orissa . .	100	129	128	110	78	89	115	145	170	213	178
Bombay . . .	100	92	105	87	92	122	211	192	210	222	199
United Provinces . .	100	153	129	121	104	145	181	193	242	271	202
Average . . .	100	118	113	103	93	115	160	166	195	227	197

(7) MAIZE.

Province.	Rate per.	AT THE END OF.										
		July 1913.	July 1914.	August 1915.	August 1916.	December 1917.	April 1918.	September 1918.	October 1918.	January 1919.	May 1919.	September 1919.
		s. c.	s. c.	s. c.	s. c.	s. c.	s. c.	s. c.	s. c.	s. c.	s. c.	s. c.
United Provinces	Rupee	16 0	11 1	11 0	15 0	15 4	14 4	8 11	8 14	7 0	6 12	8 2
Bihar and Orissa	"	13 0	12 0	11 8	13 0	13 0	13 8	12 0	9 15	7 15	6 0	8 3
Punjab . . .	"	14 4	12 0	8 0	14 8	10 12	10 0	7 8	8 0	7 8	8 0	8 10
North-West Frontier Province	"	12 1	11 12	10 5½	13 8	12 3	11 14	9 6	11 0	10 0	10 0½	8 8

Index Numbers.

(July 1913=100).

Province.	July 1913.	July 1914.	August 1915.	August 1916.	December 1917.	April 1918.	September 1918.	October 1918.	January 1919.	May 1919.	September 1919.
United Provinces . .	100	145	145	107	105	112	184	160	229	237	197
Bihar and Orissa . .	100	108	113	100	72	79	108	131	164	217	159
Punjab . . .	100	119	178	98	133	142	190	178	190	170	165
North-West Frontier Province . .	100	103	117	89	99	102	129	110	121	120	143
Average . . .	100	119	138	99	102	109	153	150	176	183	160

*Retail prices (with Index Numbers) of food grains in certain provinces in India—
concluded.*

(8) GRAM.

Province.	Rate per.	AT THE END OF										
		July 1913.	July 1914.	August 1915.	August 1916.	December 1917.	April 1918.	September 1918.	October 1918.	January 1919.	May 1919.	September 1919.
		s. c.	s. c.	s. c.	s. c.	s. c.	s. c.	s. c.	s. c.	s. c.	s. c.	s. c.
United Provinces	Rupee	15 5½	10 0	11 4½	12 8	12 8	13 0	7 3	7 8	6 0	5 12	5 9
Punjab	"	15 0	12 0	12 0	12 0	9 10	11 4	8 2	8 0	7 12	6 14	6 9
Bihar and Orissa	"	12 12	9 14	10 0	11 0	12 0	12 6	8 0	7 14	6 12	5 11	5 12
Central Provinces and Berar.	"	13 1	9 8	10 1	11 9½	10 0	9 0½	6 10½	6 0	5 14	5 5½	5 5
Bombay	"	11 1	9 0	9 0	9 14	8 5	8 0	6 0	5 12	5 5	4 11½	4 15
Sind and Baluchistan.	"	12 4	10 8	10 0½	10 8	8 0	8 7½	7 14	7 4	7 0	5 11	5 13
North-West Frontier Province.	"	14 0	13 10	11 0	10 12	9 10	8 0	8 13	8 12	8 7	6 9	6 7

Index Numbers.

(July 1913=100).

Province.	July 1913.	July 1914.	August 1915.	August 1916.	December 1917.	April 1918.	September 1918.	October 1918.	January 1919.	May 1919.	September 1919.
United Provinces	100	158	136	123	123	118	213	205	241	267	275
Punjab	100	125	125	125	156	133	185	167	194	218	229
Bihar and Orissa	100	129	127	119	106	108	159	162	189	224	233
Central Provinces and Berar.	100	137	130	118	131	145	196	218	222	244	245
Bombay	100	123	123	112	133	138	184	192	208	234	235
Sind and Baluchistan	100	117	122	117	153	145	156	189	175	210	211
North-West Frontier Province.	100	103	127	130	145	175	159	160	186	218	217
Average	100	127	127	119	135	137	179	185	199	231	232

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