

REVIEW OF THE MONSOON RAINFALL OF 1949.

Though the monsoon arrived unusually early—23rd of May—it did not advance beyond the west coast of the Peninsula during June and became established in northeast India also only at the end of the month. However within the first ten days of July it rapidly advanced over the whole country and remained fairly active giving well-distributed rain over most regions till the middle of August. There was a marked slackening in the activity of the monsoon over many regions during the second half of August. During the first fortnight of September, however, it became vigorous over most parts of northern India and the central parts of the country, while during the third week it was very vigorous in the south Circars, the Deccan and the Konkan. The monsoon withdrew from northwest India and the west United Provinces after the 19th of September and from the rest of the country by the 3rd of October. Taking the period as a whole, the rainfall was normal or in excess over the country excepting in Orissa and Madhya Bharat where it was somewhat deficient.

The monsoon was ushered into the Malabar coast on the 23rd of May—about ten days ahead of the normal date—by a depression which formed in the southwest Bay of Bengal and moved westwards across the Peninsula as a low pressure wave. A

trough of low pressure which had appeared on the 22nd off the Konkan-Kanara coast and persisted with varying intensity being a deep depression at one stage, helped to maintain the activity of the monsoon right up to the north Konkan till the 29th of May. After the weakening of this trough by the beginning of June, the monsoon also weakened along the west coast. It receded from the Konkan after the 8th of June and till the end of the month continued to be generally weak along Malabar also, except for two short spells of activity. The seasonal trough of low pressure over the Gangetic plain was not properly formed till the second week of June and consequently the advent of the monsoon into northeast India and from there into the interior was also delayed. In fact after advancing into Assam on the 9th of June, the monsoon was generally confined to that region till the end of the month, except for a temporary extension into Bihar, Chota Nagpur and Orissa between the 11th and 13th and a feeble advance into Gangetic west Bengal and the east Central Provinces in the middle of the fourth week. By the 29th of June, however, the seasonal trough of low pressure over the Gangetic plain had formed well in its normal position and the monsoon rapidly got established in northeast India by the next day. It may thus be seen that the activity of the monsoon during June was confined mainly to Malabar and Assam, where even it was generally feeble. However the Central Provinces, most parts of the Deccan and the eastern districts of the Madras Presidency got their usual quota of rainfall from thunderstorms during the early part of the month. The regions which were practically dry were Gujarat, Saurashtra and Cutch, the East Punjab and the United Provinces. Averaged over the plains of India the rainfall during June was in defect by 15%.

Following the establishment of the seasonal trough in its normal position the monsoon began rapidly advancing into the interior of the country aided by a low pressure wave from the northwest Bay of Bengal and by the 9th of July, it got established over the whole country. The favourable orientation of the axis of the monsoon trough together with the northwestwards movement from time to time of low pressure waves along it from the northwest Bay of Bengal served to maintain the monsoon generally active over the whole country during the rest of the month except for a "break" between 19th and 23rd July. During the "break" widespread and locally heavy rain was confined to the region from Assam to the East Punjab. Associated with unsettled conditions in the north Bay of Bengal, the monsoon became vigorous in the south Konkan on the last two days. To sum up, the establishment of the monsoon over the whole country early in July and its continued activity during the month made up to a large extent the deficiency of the rainfall in June in such regions as the United Provinces, Saurashtra and Gujarat. Averaged over the plains of India the rainfall during July was in excess by 9%.

The monsoon continued active over the country outside Orissa and Deccan during the first ten days of August, vigorous monsoon conditions prevailing in Saurashtra and Cutch and the west Central Provinces from 1st to 3rd. After the 5th of August the axis of the monsoon trough of low pressure shifted northwards and from the 10th to 20th, it lay oriented northwest to southeast from the east United Provinces to the head of the Bay of Bengal. Consequently the rainfall belt shifted to the United Provinces and northeast India, while the rest of the country excluding the west coast got little rain. The monsoon weakened in the United Provinces and northeast India also after the 24th. During the last week of August the pressure distribution over the country showed large positive departures over the whole of northern India and the central parts of the country and negative departures in the south Peninsula and along the Konkan. The upper wind system characteristic of the monsoon period had also disappeared. A well marked trough of low pressure formed in the west central Bay, and moved westwards across the Deccan and under its influence the monsoon became active again over most parts of the Peninsula during the last week of August and revived in Gujarat and Saurashtra also on the last two days. Averaged over the plains of India, the rainfall for August was in defect by 4%.

The monsoon revived in the United Provinces, the central parts of the country, the Deccan, Assam and West Bengal early in September but continued weak over the rest of northeast India and the whole of northwest India during first week. It strengthened over these areas also during the second week in association with two shallow depressions from the northwest angle of the Bay, one of which moved up to the northeast Central Provinces and became unimportant there, and the other moved upto lower Sind. Strong monsoon conditions prevailed in the west Central Provinces and Madhya Bharat and neighbourhood between the 14th and 19th. After the 19th, the monsoon withdrew from northwest India, the west United Provinces and till the end of the month, was generally weak in the east United Provinces, the central parts of the country and northeast India excluding Assam. The monsoon strengthened considerably in the Peninsula between the 19th and 23rd in association with a depression from the Andaman Sea which crossed the coast to the north of Masulipatam and weakened over Hyderabad. In association with this depression, rainfall was locally very heavy in the south Circars Coast and south Deccan on the 21st and in the north Konkan on the 21st and 22nd. Bombay had a record rainfall of 32" in 48 hours of which 23' fell in 12 hours on the 22nd. Considerable damage to property due to these heavy rains was reported from the Nellore, Kistna and Kurnool districts of the Madras Presidency and from the Bijapur district of the Bombay Province.

After the 25th of September, the monsoon became weak in the Peninsula. The end of the month saw the withdrawal of the monsoon more or less from the whole country and by the 3rd October, it had completely withdrawn. Averaged over the plains, the rainfall for September was 32% in excess.

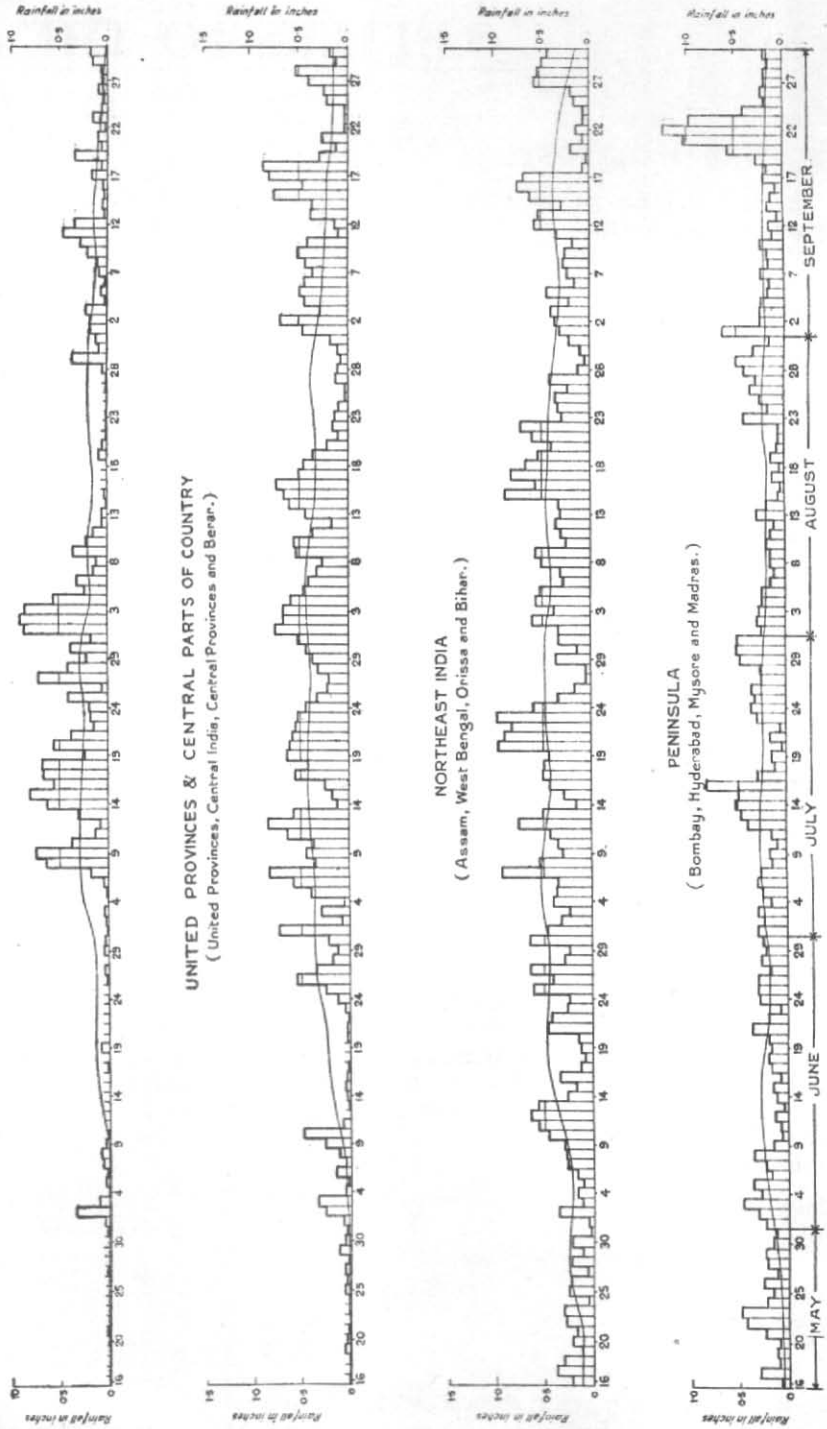
Taking the season as a whole the monsoon may be said to have behaved well after its early vagaries. The rainfall for the period was normal or in excess over the country except in Madhya Bharat and Bhopal and Orissa where it was somewhat deficient. Averaged over the plains of India the rainfall was 5% in excess.

The progress of the monsoon day by day in different divisions is shown in Fig. 1.

PROGRESS OF THE MONSOON DAY BY DAY

16th MAY TO 30th SEPTEMBER 1949

The stepped curves represent the actual rainfall
and the continuous curves the normal rainfall.



N.B.:- Central India includes Madhya Bharat, Bhopal & Vindhya Pradesh Fig. 1.