

The Weak Indian Monsoon of 1982

Many of the readers of our paper 'Year-in-advance Forecasting of the Indian Monsoon Rainfall', published in last Spring's issue of *Environmental Conservation*, may have noticed that it contained an outlook for 1982, and may have wondered since then about the accuracy of that outlook. In this follow-up note, Fig. 1 gives the actual forecast made two years in advance, Fig. 2 shows the update made in 1981, and Fig. 3 shows the pattern observed in 1982—all for combined June-through-August rainfall.

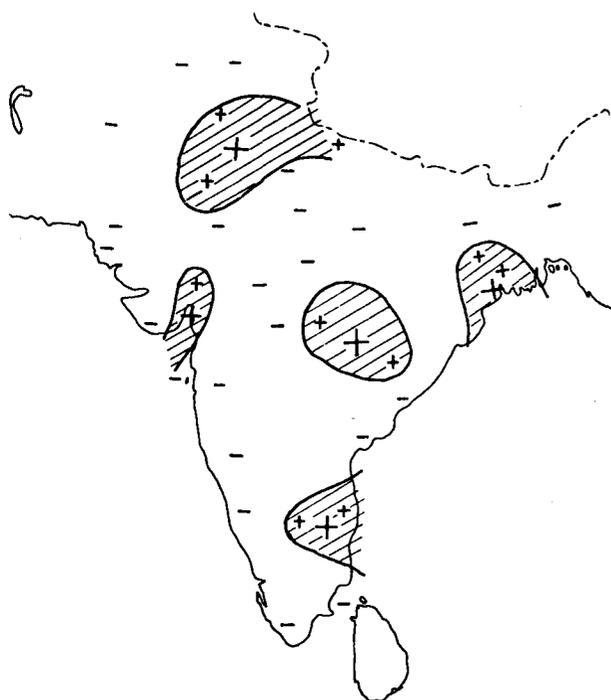
We were, of course, pleased that the forecast pattern was very nearly correct (in fact, about 70% of the stations were correctly forecast). The forecast for September alone (not shown) indicated an early withdrawal of the monsoon. It was 76% correct. However, we were *not* pleased that the rainfall should have been below normal expectations in a country where the monsoon is so critical.

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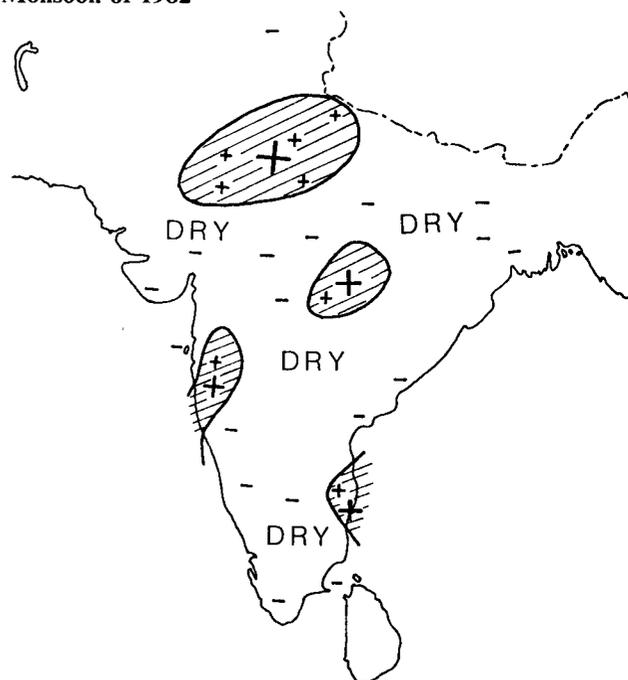
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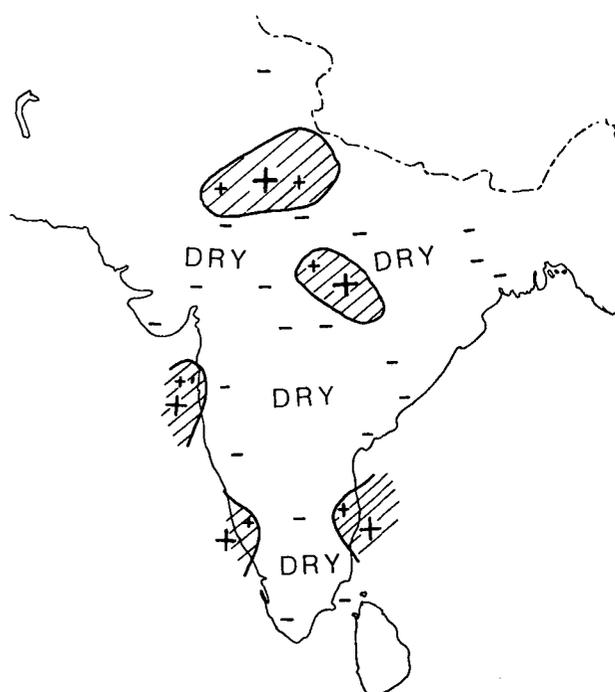
TWO-YEARS' FORECAST
JUNE + JULY + AUGUST 1982

Fig. 1. Pattern of departures from the 1941-70 average June-through-August Indian monsoon rainfall for 1982 as predicted in 1980. Plus and minus signs indicate above and below the 1941-70 average, respectively, at those stations for which forecasts were made. The diagonal hatching indicates those areas that had above-normal precipitation in 1982. There may have been other areas for which we have no data.



ONE-YEAR FORECAST
JUNE + JULY + AUGUST 1982

Fig. 2. Pattern of June-through-August 1982 rainfall departures from the 1941-70 average as predicted in 1981. Symbols as in Fig. 1.



OBSERVED
JUNE + JULY + AUGUST 1982

Fig. 3. Observed June-through-August 1982 rainfall departure from the 1941-70 average. Symbols as in Fig. 1.