

### 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.

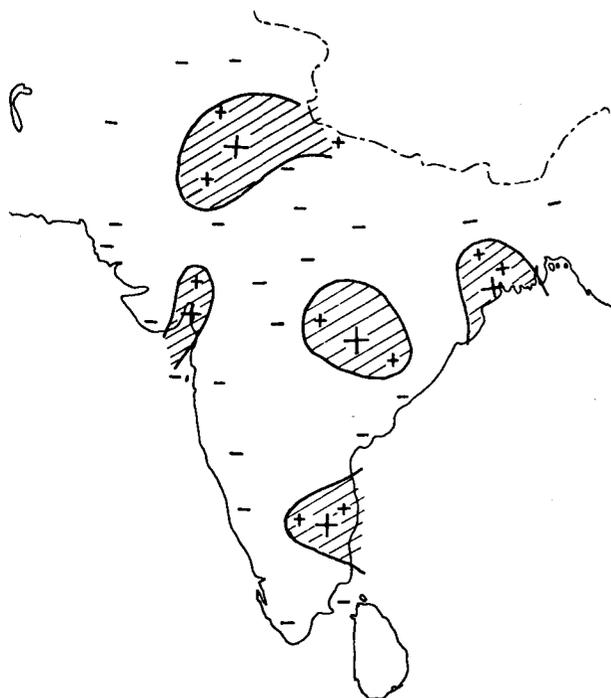
We were, of course, pleased that the forecast pattern was very nearly correct (in fact, about 70% of the stations were correctly forecast). The forecast for September alone (not shown) indicated an early withdrawal of the monsoon. It was 76% correct. However, we were *not* pleased that the rainfall should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

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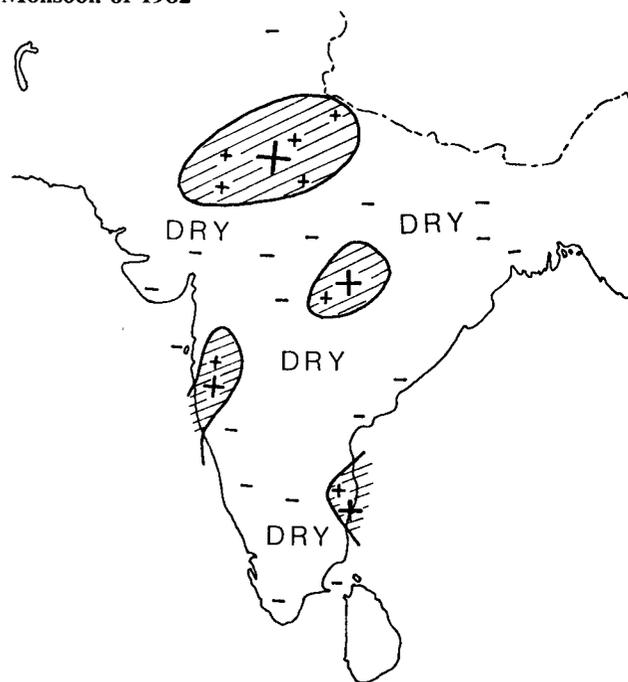
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WILLIAM H. CAMPBELL  
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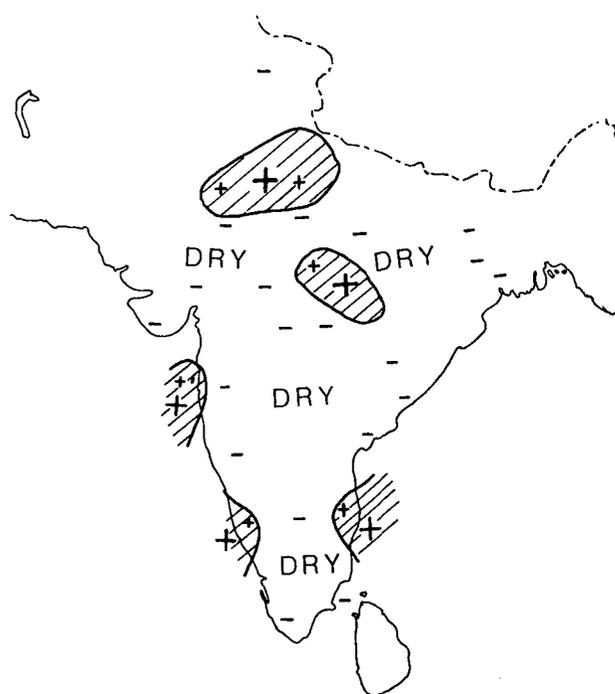
TWO-YEARS' FORECAST  
JUNE + JULY + AUGUST 1982

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.