

Figure 4.5: The original rainfall time series with the predicted values of the derived model in the same period.

The output of HoltWinters() function was stored in the variable baguiorainseriesforecasts\$fitted. The forecast for the period January 2000 to December 2011 is shown partially in Figure (4.6), and in full in Figure (B.1) of **Appendix B**.

We now make forecasts for further time points by using the forecast.HoltWinters() function in the R forecast package. forecast.HoltWinters() uses the predictive model derived using the HoltWinters() function. The result is in Figure (4.7).

```
library (forecast)
This is forecast 4.01
baguiorainseriesforecasts2 ← forecast.HoltWinters(
   baguiorainseriesforecasts,
    h = 12)
baguiorainseriesforecasts2
         Point Forecast
                           Lo 80
                                   Hi 80
                                           Lo 95
                                                  Hi 95
Jan 2012
                   59.32 -366.29
                                                  710.2
                                   484.9 -591.60
Feb 2012
                   40.91 -384.70
                                  466.5 -610.01
```