Rainfall index insurance provides a payout based on measured local rainfall during key phases of the agricultural season, and in principle can help rural households diversify a key source of idiosyncratic risk. This paper describes basic features of rainfall insurance contracts offered in India since 2003, and documents stylized facts about market demand and the distribution of payouts. The authors summarize the results of previous research on this market, which provides evidence that price, liquidity constraints, and trust all present significant barriers to increased take-up. They also discuss potential future prospects for rainfall insurance and other index insurance products.