

- and 1.45 (Joladarsi).
1237. **Rama Mohan Rao, M.S., Chittaranjan, S. and Chandrappa, M. 1988.** Resource conservation through watershed management for improving productivity. *Ind. J. Dryland Agri. Res. & Dev.*, 3(2):17-30.

The proven experience of development of a watershed on an integrated basis to bring about the improvement of productivity on sustained basis, has been tested at the Chinnatekur watershed which has an area of 1120 ha and receives 0.654 m annual rainfall. Monitoring the project revealed that the treated forest land recorded only 5% runoff against 13% from the agricultural lands and the recycling of harvested water increased the groundnut yield by 46%. Graded bunds improved groundnut yields by 20% over no bunds (0.60 Mg/ha) and border strips brought about 31% increase in yields. Among the water harvesting structures, earthen structures were cost effective (Rs. 4.45 m storage) compared to Rs. 24 to 27 with masonry structures. With improved ground water storage as a result of water harvesting structures, the command area under the existing wells increased by 25%. Closure to grazing resulted in dry forage yield of 4.40 Mg/ha compared to only 0.50 Mg/ha under control. The development based on the above programme has resulted in 225% increase in per capita income compared to the pre-project period.