

## **Development of Water Resources, Conservation and Management for Crop Production in Ghatampur Watershed**

**Munish Kumar<sup>1</sup>, R.B. Singh and R.A. Singh**

Department of Soil Conservation & Water Management  
C.S. Azad University of Agriculture & Technology, Kanpur - 208 002, UP, INDIA  
E-mail: <sup>1</sup>munish@csauk.ac.in, mkg\_csau@rediffmail.com

### **ABSTRACT**

The study was laid out under National Watershed Development Programme for Rainfed Area's at Ghatampur, district Kanpur Dehat from 1994-95 to 2005-06, to evaluate the impact of soil and water conservation technology on runoff, soil erosion and yield of various crops in watershed of Yamuna, river using technology generated at the university. The rain water conserved in watershed area of 576 ha with land leveling and smoothening (66 ha), contour bounding (275 ha), field bunding and leveling (45 ha), field bunding + vegetative barrier (38 ha), contour furrowing (48 ha) live/vegetative bunding (11095 m), filter strip of castor (3800 m), gully plugging (162 m) and sunken structure (8 nos). The impact of different soil and water conservation technologies were found significant. The effect of sunken structure was highly pronounced and resulted in over all increase in the yield level by 25-30 percent in kharif crops like; sorghum, black gram, green gram, soybean and groundnut grown in the pilot area. The establishment of vegetative bunding in combination with mechanical measures were decrease in soil erosion (3.80 t/ha) over conventional method (9.64 t/ha) and runoff thereby making more moisture available during critical period of crop growth.