

## **Percolation Tank cum Check Dam constructed at ridge portion has produced good results at valley portion**

The farmers at valley area of Eniarppu in Kunjar watershed in Badiadka Grama Panchayat of Kasargod District were facing serious problems due to heavy runoff water from the upper catchment. The problems include loss of paddy due to water logging, contamination of well water, damage to cattle sheds and other assets. This necessitated the farmers to shift the cattle to some other areas during monsoon due to water intrusion in to the cattle shed. This problem was discussed in the PRA conducted as part of preparation of Feasibility Study Report (FSR). To overcome these problems, it was proposed in the FSR to construct a percolation tank cum check dam at ridge portion to regulate the flow of rain water coming from both sides of the catchment. The structure was constructed under NABARD Holistic Watershed Development Programme (NHWDP) in May 2011 with a storage capacity of 1305800 Litres of water at a time. Total length is 59.2 Mtrs and Height 1.30 Mtrs (0.9 Mtrs at the center where a cutting is made). Total cost came to Rs. 196000. (Grant of Rs. 180851 and Shramadhan for Rs. 15149.)

### **The Structure constructed**



In the rainy season of 2011, the structure regulated the speed of runoff water and the problem of flooding was resolved for the first time. In that rainy season, the farmers could retain their cattle assets at their original sites and no colour change (contamination) of well water was observed. Runoff water was first collected and stored in the tank and it slowly percolated. This has contributed to water table augmentation in valley portion. The water table in the open well of Mr. Balagopala was observed. On 31 March 2011, the

water table was 0.45 Mtrs. It was 1.1 Mts on 15 May 2012. The net increase is 0.65 Mtrs. The farmer also had a bore well (with a depth of 79.3 Mtrs) which he uses for irrigation during summer. After the construction of the Check Dam, the farmer could substantially reduce the use of bore well as the open well (With a depth of 6.80 Mtrs) is providing water for irrigating the vegetables. It is evident in the following table

Month	Use of water body in 2010-11		Use of water body in 2011-12	
	Bore well	Open well	Bore well	Open well
Jan	Not used	Used	Not used	Used
Feb	Started to use	Used	Not used	Used
Mar	Major use	Minimum level use till mid march	Not used	Used
Apr	Sole use	Could not use due to lack of sufficient water to pump.	Not used	Used
May	Sole use	Could not use due to lack of sufficient water to pump.	Minimum level use (Rarely)	Major use

#### **A close view of the structure**



Before the construction of the check dam, vegetable was cultivated in 8 acres of land by the farmers. After the construction of the check dam, due to water availability, the farmers could cultivate an additional area of 4.5 acres (Total area under vegetable cultivation comes to 12.50 acres). In the summer season, for the first time, they could

take up two crops of vegetables. Centre for Research and Development (CRD), Nileschwaram is the PFA to this Watershed Project.

**Vegetable cultivated**

