



Vol. 43, No. 2, pp 125-130, 2015

Indian Journal of Soil Conservation

Online URL: <http://indianjournals.com/ijor.aspx?target=ijor:ijsc&type=home>



Rainwater harvesting using plastics lined ponds and its efficient utilization strategies

Pratap Ray Bhatnagar

ICAR-Indian Institute of Soil and Water Conservation, Research Centre, Vasad-388306, Distt. Anand, Gujarat.

E-mail: pr_bhatn@yahoo.com

ARTICLE INFO

Article history:

Received : January, 2014

Revised : January, 2015

Accepted : March, 2015

ABSTRACT

Rainwater harvesting is one of the important aspects which has been emphasized again and again at all levels. For agricultural growth, water is a crucial factor. However, only 44% cultivable land has been brought under irrigation and rest has to depend on rainfall only. In uplands of hilly or plateau regions, which is horticultural potential area, mainly suffers due to lack of irrigation water, even though occurrence of good amount of rainfall that is restricted to monsoon season. Rainwater harvesting in small ponds and then providing irrigation using some efficient system is one of the answers to the problem. But, higher seepage from such ponds limits use of such water resources. Plastics lining (may be with LDPE, HDPE or silpauline) has become popular now-a-days. Method of lining with such material differs from one place to another as well as requirement. Proper method of lining, life of such lining, protection from damages, *etc.* are some of the issues which are being researched upon at several places and recommended based on need of the location. Secondly, appropriate strategy for utilization of such costly water resources in upland or mid-land areas needs to be evolved for realizing maximum benefits. It includes water conveyance, irrigation method, water delivery and application devices, irrigation scheduling, and dynamic command area as per availability of harvested water in a particular season/period, economics, *etc.* The paper enumerates various achievements obtained in experimental farm as well as in farmer's field in participatory mode at different locations under the AICRP on Application of plastics in Agriculture as well as elsewhere.

Key words:

Rainwater harvesting,
Plastic lined ponds,
Multiple use,
Upland areas