

S. No.	Particulars	Details/Information
1	Technology*	Spring Water Harvesting System – A Sustainable Solution for Water Resource Development in Hilly Areas
2	Authors	D.V. Singh, S. Patra and P.K. Mishra
3	Developed for arable or non-arable lands	Arable lands
4	Period of experimentation	2013-2017
5	Description/specifications in brief (e.g. package of practices, etc.)	Issue of water resource development in the hilly areas is typical, since the topographical limitations like steep slopes and occurrence of frequent landslides prevent laying of a network of canals/diversion channels (<i>guhls</i>); and also exploitation of groundwater is not feasible. Hence, increased water demand can be met to a greater extent by community based adoption of spring water harvesting technology. Use of HDPE pipes in conveyance and silpaulin sheet for lining of storage structures found to be a cost effective and sustainable solution.
6	Importance/sale value	Water harvesting plays a key role in the hills. In some places of Himalayas, traditional water harvesting systems like <i>Naulas</i> , <i>Khals</i> , <i>Hauj</i> , <i>Guhls</i> etc. are still in place to meet domestic, livestock and irrigation needs. But there are inherent demerits and limitations. There are a few other sources of irrigation in the hills like lift irrigation through electric motor or hydraulic ram (commonly known as <i>hydrams</i>) but their wider applicability is limited due to high cost and other geographical constraints. Under such conditions, spring water harvesting technology can mitigate the problem of water scarcity.
7	Outcome and domain area of application of the technology	Use of HDPE pipes in conveyance and silpaulin sheet for lining of storage structures found to be a cost effective and sustainable solution for doubling farmers' income, if participatory approach is adopted with effective local leadership. This technology is recommended for those hilly areas where untapped perennial source of water (spring) is situated at higher elevation than the common place of storage in a targeted village so that water can be conveyed through low cost pipe under the influence of gravity.
8	Title of the approved project/assignment with Scientific team	Participatory Water Resource Management and Agricultural Development in Tribal Areas of Uttarakhand implemented under Tribal Sub-Plan D.V. Singh, S. Patra, P.K. Mishra and D.M. Kadam
9	Scanned copy of one good photograph which can reflect the technology	