

## Impact of rain water harvesting under NICRA project in Bhalot village of Kutch

### Introduction :

Krishi Vigyan Kendra, Mundra adopted a Bhalot village for NICRA project work in Kutch district. Agriculture land is sandy to sandy loam. It is hilly and undulated land surrounds the village. The source of irrigation water is open well. Irrigation from open well was limited during good rainfall year. Hence, majority of open wells were utilized only to supply life saving irrigation during the kharif season.

### Interventions / Technology details :

After primary study, Krishi Vigyan Kendra, Mundra decided to implement rain water harvesting work. It was decided to prepare small checkdams on different water streams, farm bunding, well recharging, deepening of old farm ponds, etc. To implement this work convergence with NGOs, DWDU (district watershed Development Unit and other agencies.



- Under NICRA project two small checkdams prepared.
- Five well recharging models prepared on different wells.
- Total 10 old checkdams renovated and made desilting by 80% funds of DWDU and 20% contribution from farmers.
- Three farm ponds were desilted and water storage capacity was increased (by NICRA, DWDU and peoples' contribution).



**Rain Water Harvesting Structure**



**Well Recharge Model**



**Recharged Open Well**



**Desilting of Checkdam**

Moreover, other small size 15 checkdams were prepared earlier under Agakhan Rural Support Programmes. Thus, Bhalot village is benefited by different structures of rain water harvest work. An excellent impact of this work is observed in the field today.

#### **Significant output with percent increase :**

- Number of open wells increased : Almost 42 open wells are increased after this rain water harvesting work.
- Underground water level has been raised by 3 to 6 meter.
- Water in 5 open wells are overflowing during monsoon.
- Farmers were earlier giving only two to three irrigations to crops during only kharif season. Today farmers are growing kharif and rabi season crops also.
- Area under irrigation is increased.

Season	Area under Irrigation		Irrigated area increased (ha)
	Before work	After work	
Kharif	310	430	120
Rabi	45	160	115
Summer	0	12	12
<b>Total</b>	<b>355</b>	<b>602</b>	<b>247</b>

Thus, 247 ha area under irrigation is increased due to rain water harvesting work.

#### **Economics :**

Value of crop produced from additional 247 is about Rs. 148 lakh.

Thus, annual income of Rs. 148 lakh in the village is increased due to Rain Water harvesting Work.

