

**GOVERNMENT
FOREST**



**OF RAJASTHAN
DEPARTMENT**

SUCCESS STORY

Kadana (Mahi) River Valley Project

SUBWATERSHED : PATAN
SUB WATERSHED CODE : Bb 3c
YEAR : 2010-11 TO 2015-16



PIA

*Depty Conservator of forest projects
Kadana (Mahi), R.V.P., Banswara (Raj.).*

UNDER

*Chief Conservator of Forest
&
Director Projects (Soil Conservation).
Kota (Rajasthan).*

[N.S. CHOWDHARY, Dy. Conservator of Forest, (Project), Forest Department, Banswara (Raj.)]

SUCCESS-STORY

Kadana (Mahi) River Valley Project

BRIEF DESCRIPTION:-

This watershed was initially started in the year 2010-11 sanction in NMMA Scheme & completed in the year 2015-16. From 2013-14 & onward funded by RKVY Scheme. Under RKVY Scheme total hectare area of Waste Land 593 ha. and Forest Land 139.00 ha. was treated.

-: KEY STATICS OF SUB WATERSHED PATAN:-

(A) GEOGRAPHIC DESCRIPTION:-

Sub watershed PATAN lies in Kushalgarh block of the Banswara district in Rajasthan. The sub watershed code number is Bb 3c and it is a very high priority. The sub watershed PATAN situated 80km. East-South direction from Banswara.

Longitude of watershed:- 74⁰38¹30¹¹ E to 74⁰42¹15¹¹ E

Longitude of watershed:- 23⁰13¹30¹¹ N to 23⁰16¹30¹¹ N

(B) PHYSICAL DESCRIPTION:-

This sub watershed covered area villages are Haldupada, Patan, Amliyamal, Ugmnapada, Kadwali Kalan, Kadwali khurd, Potalia.

(C) STATUS OF LAND USE AREA IN SUB WATERSHED:-

The total area of watershed PATAN is 2219 Hectare. The details of land use and treatable areas are as under –

Sr. no.	Land use	Total area in ha.	Treatable area in ha.
1	2	3	4
1.	Agriculture land	517.00	517.00
2.	Waste land	1257.00	1250.00
3.	Forest land	445.00	300.00
	Total	2219.00	2067.00

- 152 ha. Land is irrigated out of 2219 ha. of total is roads, rivers, and habitation etc. so therefore left from treatable.

(D) IRRIGATION FACILITIES AND WATER RESOURCES:-

The irrigation facilities available area in the form of open dug well, shallow tube wells with pumping sets or submersible pumps. No major or minor irrigation projects are available in the vicinity for irrigation in the watershed area.

(E) WORK COMPONENT ACTIVITIES IMPLEMENTED UNDER RVP SCHEME:-

Soil & moisture conservation works executed on agriculture land, waste land and forest land are as follows: –

(Area in ha. /str. in no.)

Sr. no.	Name of work	Land wise achievements			
		A/L	W/L	F/L	TOTAL
1	2	3	4	5	6
1.	Contour Trenching	0	0	100 ha.	100 ha.
2.	CVH	285ha.	0	0	285 ha.
3.	CGB	232ha.	1230 ha.	0	1462 ha.
4.	Pature Development	0	20	0	20
5.	DLT Treatment	-	-	-	200 ha.
(a)	U/R- ELB	90	200	30	320
(b)	M/R- LBVS	35	120	50	205
(c)	L/R- EB	4	4	0	8
(d)	L/R- Gabion	12	37	18	67
(e)	L/R- SDS	5	16	10	31
(f)	L/R- WHS	3	6	0	9
	Total Area	517 ha.	1250 ha.	100 ha.	2067 ha.
	Str.	149 str.	383 str.	108 str.	640 str.

After completion of above treatment in five years the following benefits were observed.

1. INCREASE IN CROPPING INTENSITY AND IRRIGATION POTENTIAL :-

Due to soil & water conservation works carried out in the area cropping intensity increased and with the construction of WHS irrigation potential has increased as shown in the following chart.

SR. NO.	STR. NO.	TYPE OF LAND	NAME OF FARMER	IRRIGATED LAND IN BHEEGA
1	2	3	4	5
1.	WHS NO. 1 KADWALI KALA	W/L MICRO- 1	DALJI S/O WAHLEEN GAUTAM S/O VALHENG PARTU S/O VALHENG LAL SINGH S/O DUDA	2.0 2.5 2.0 1.5
2.	WHS NO. 1 POTALIYA	A/L MICRO- 1	VIRJI S/O VADIYA RAMESH S/O / VIRJI KALU S/O GAUTAM	2.0 2.0 2.5
3.	WHS NO. 3 PATAN	W/L MICRO- 1	MANJI S/O VIRJI MMANSINGH S/O KANIYA	2.0 3.0
4.	WHS NO. 1 HALDUPARA	A/L MICRO- 2	GOPAL SINGH ONKAR SINGH NARAYAN SINGH	2.0 2.5 3.0

Sr. no	Name of Farmer	Name of village	A/L land in bheega	Crop details before project (in qnt./ bheega)	Crop details after project (in qnt./ bheega)	Increase in crops (in qnt./ bheega)	details
1	2		3	4	5	6	7
1.	Partu s/o Vahlin Dalji s/o Vahlin Dalu s/o Kachriya Teru s/o Jeevla Raichand s/o Punja	Kadwali kalan	2.0 3.0 2.0 3.0 2.0	3.0 3.0 3.0 2.0 2.0	3.7 3.7 3.7 2.3 2.5	0.70 0.70 0.70 0.30 0.50	Maize Maize Maize Cotton Urad
2.	Varsingh s/o Nathu Dalji s/o Deepa Bahadur s/o Daula Daula s/o Punja Rama s/o Varsingh Nanji s/o Punja Kheema s/o Punja Kalu s/o Bhuriya	Kadwali khurd	2.5 2.0 2.5 2.5 3.0 3.0 2.0 2.0	3.0 2.5 2.5 2.0 3.4 3.4 2.0 3.0	3.6 3.0 3.0 2.5 4.0 4.0 2.3 3.7	0.60 0.50 0.50 0.50 0.40 0.40 0.30 0.70	Wheat Soyabean Soyabean Tuar Rice Rice Cotton Maize
3.	Ramesh s/o Virji	Potaliya	3.0	3.4	4.0	0.40	Rice
4.	Ranji s/o Duda Nevji s/o Duda	Haldupara	2.5 2.0	2.0 3.0	2.3 3.7	0.30 0.70	Cotton maize



SWS PATAN WHS WORK YEAR 2014-15



SWS PATAN SOIL WORK, GABION & SDS WORK 2014-15



SWS PATAN M-I A/L WHS NO. 1 YEAR 2012-13

2. INCREASE IN GROUND WATER TABLE:-

The above mentioned works have able to stop the surface rain water to flow and recharged the ground water in the area significantly which has created large impact in the area since drinking water is easily available in both open wells and hand pumps for local community (for both human and cattle) and also supporting vegetative growth before the project implementation.



SWS – PATAN, WELL IN VILLAGE POTALIYA

There has been substantial increase in ground water table as is clear from the table given below:-

Sr. no.	Name of village	Water level to ground level in wells before implementation of project in meters	Water level to ground level in wells after construction of WHS in meters	Increase in water table
1	2	3	4	5
1.	Kadwali khurd	10.00	12.60	2.60
2.	Kadwali kalan	11.20	14.00	2.80
3.	Potaliya	9.50	11.30	1.80
4.	Patan	10.20	12.10	1.90
5.	Haldupada	11.10	13.20	2.10
6.	Amliyamal	11.90	13.60	1.70

3. INCREASED CATTLE POPULATION AND MILK PRODUCTION :-

The promotion of fodder grasses has been resulted into significant increase in population of cattle after in the project area. In the project disseminated seeds of nutrient fodder grasses in waste land Contour Bunds, Contour Trenching, CVH, and developed agriculture land, and supplied plant samplings to farmer to promote agro-forestry which increased fodder for cattle in the area.



SWS PATAN WHS & SOIL WORKS YEAR 2014-15

The following shown a comparative data of population of cattle before the project and after the project.

-: Cattle population before and after project :-				
Sr. no.	Animal	Before project	After project	Increased population
1	2	3	4	5
1.	Bullocks	770	840	70
2.	Cows	860	965	105
3.	Baffalows	1603	1690	87
4.	Sheep & Goats	830	1020	190
5.	Hen	580	720	140
	Total	4643	5235	592

4. INCREASE IN IRRIGATION AREA :-

With the construction of soil and moisture conservation structure the availability of water in this watershed has increased.

5. INCREASE IN SOCIO-ECONOMIC CONDITION :-

Directly or indirectly with the activities of the watershed income level of the villagers have increased.

HORTICULTURE:-

The saplings of improved horticulture varieties of fruit plants like mango, lemon and emblica were made available free of cost to the farmer. Although the local community took interest in getting saplings and they also planted on their farm lands.

The farmer needs proper orientation to grow horticultural varieties. In the area there are few mango trees still exist on the farm lands of those farmers who take care during the drought period and also protected from cattle.

AGRO-FORESTRY:-

1000 saplings of bamboo were provided free of cost to the farmers to propagate on farm boundaries/bunds in addition to good quality seeds, mini kits exercise was distributed also organized to orient the farmers to use the proper technique to grow these trees in their farms. The mature trees will also fetch cash earnings for the farmers.

CONCLUSION:-

The project has met its objectives successfully by completing the targets set in the end of the project and it has clear positive impact on the lives of local community after five years of project completion. Various treatment techniques/measures used in watershed area have increased productivity of land substantially. Milk production also increased as compared to pre-project data in the area.

Efforts made to promote horticulture and agro-forestry has shown somewhat encouraging impact in the area. Although appropriate technique to grow improved varieties of horticulture plants suitable for the area in farmer's farm lands has been taught and saplings of plants were made available to farmers.

Drudgery of women folk and out migration of people/families has been reduced significantly due to improved economic status of farmers and other beneficiaries and increased livelihood opportunities which is the result of successful implementation of the project by involving local community/beneficiaries proactively in the project planning and monitoring, this model has been relevance to be replicated in other parts of similar geographical areas to improve the productivity of land increase natural resources and provide livelihood options to the poor community.



SWS PATAN M-I W/L SOIL & WATAR CONSERVATION STRUCTURE YEAR 2014-15



SWS PATAN SOILWORK & GABION YEAR 2014-15



SWS – PATAN, WELL IN VILLAGE POTALIYA



SWS PATAN SOILWORK & GABION YEAR 2014-15