Kalman Village - At a Glance

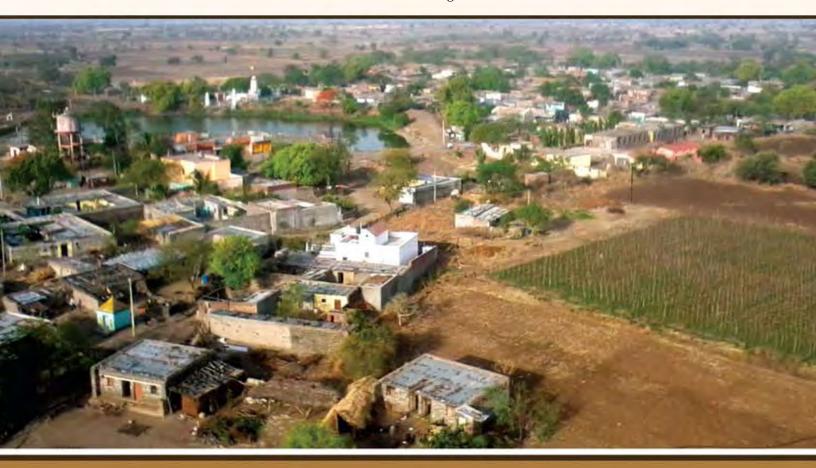
PR Bangar, VK Chopde, VR Kiresur and MCS Bantilan

I. INTRODUCTION

To provide the most efficient way to understand the farming systems in rural areas, and to identify the socioeconomic constraints faced by the farming community in the semi-arid tropics (SAT), the then Economics Program of the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) initiated Village Level Studies (VLS) in 1975 at six villages in SAT India. Solapur district in Maharashtra state is one of the regions covered under the VLS, from which two villages, namely, Kalman and Shirapur belonging to North Solapur and Mohol taluks, respectively, were selected.

Kalman village $(17^{\circ}55.1' \text{ N } 75^{\circ}47.6' \text{ E})$ is situated in North Solapur Tehsil in Solapur district $(17^{\circ}10' \text{ to } 18^{\circ}2' \text{ N}; 74^{\circ}42' \text{ to } 76^{\circ}15' \text{ E})$ of Maharashtra state. It is located 6 km to the West of State Highway-151 (Solapur to Barsi), 15 km away from the nearest town Vairag and 36 km away from the taluk headquarters North Solapur and district headquarters Solapur. The taluk and district headquarters are located at Solapur. The village is on the connecting road between Pandharpur and Tuljapur. The village habitation extends over around 20 ha with 660 households. The total geographical area of the village is 2,591.77 ha of which 97% is cultivable.

The village is famous for the Lord Khandoba temple, which several people from Maharashtra state visit especially during "Khandoba Yatra" celebrated in December every year. It is reported that in ancient times, there was a King called "Kalam" who ruled the village during 12th century AD. He built a temple of Lord Kalmeshwar in the year 1209 AD. Thereafter the village was called "Kalman".





International Crops Research Institute for the Semi-Arid Tropics The village falls within the semi-arid tropics with a normal annual rainfall of 550 mm which is, however, erratic in nature. The village has evolved over decades in terms of agricultural advancement and economic development. Poverty still haunts the village. Kalman has good infrastructure. It is well connected by roads to important cities and towns. A railway station exists 20 km away from the village. Main roads in the village are cemented. Nearly 85% of the households have access to electricity. About 60% of the households have pucca/semi-pucca houses. Nearly 40% of the households access safe drinking water through tap connections while the remaining households meet their water requirement through 4 electric motor-operated borewells, 5 hand pumps and 3 public taps connected to 3 water tanks.

II. HISTORICAL BACKGROUND/ DEVELOPMENT OF THE VILLAGE

During the last three decades, Kalman village has progressed, in varying degrees, in terms of social, political, economic, technological, institutional, infrastructural, educational and religious advancement.

Social: About four decades ago, people in the village lived isolated based on caste groups. In other words, the houses were segregated by major caste groups; the so-called forward caste people lived in the middle of the village while the backward caste people lived on the periphery. Presently, the situation has changed – they live together; the houses of the forward and backward castes are interspersed. Due to population growth, the villagers have purchased private residential plots or occupied gram panchayat land, constructed houses and are living together.

The households in the village belong to 22 castes. As of 2010, the Maratha caste is the dominant caste in the village, accounting for 224 of the 660 resident



households (34 percent), followed by Dhangar (14 percent), Mali (13 percent), Mahar or Navboudha (9 percent), Koshti (6 percent), Wani (5 percent), Muslim (4 percent), Chambhar (4 percent), Sutar and Wadar (2 percent each). Though the caste-wise composition of households during the mid-1970s was almost the same as compared to the present, the number of Mali caste households has significantly increased from 38 to 86 accounting for 126 percent growth, whereas the Dhangar, Mahar/Navboudha and Maratha castes grew at 84 percent, 66 percent and 63 percent, respectively.

Another important element of social transformation is the sourcing of drinking water. As of now, every household draws drinking water from the same water source unlike the earlier practice of dedicated wells for the households of scheduled castes/tribes owing to the practice of "untouchability".

Political: In 1970s, the village was ruled by people of the Maratha caste with the support of people of other castes. However, over time, through several legislations, the government has provided opportunities for people of different caste groups and also for women. This has led to political empowerment of weaker sections, namely, backward castes and women.



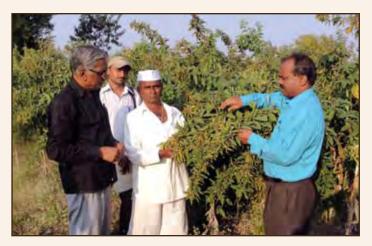
There is a Gram Panchayat in the village with eleven members. These panchayat members are elected by the villagers every five years. The present Gram Panchayat is headed by a woman from forward caste (Maratha). This gram panchayat is hosted in the "Mini-Assembly" building that was constructed in 2001. In this village, one Agricultural Assistant/Gram Sevak is attached to the village panchayat and he works as Secretary to the gram panchayat and also as extension official of Block Development Office. There are two strong politically rival groups in the village that are affiliated to the national/regional political parties. During election periods, hectic political activity and tension are visible in the village. *Economic:* The village witnessed economic development due to increase in livelihood options including salaried jobs, petty business, out-migration for labor earnings, small-scale industries, etc. The main driver of this economic development is agricultural development. In 1970s, villagers predominantly depended on agriculture for their livelihood and very few had salaried jobs. Farmers were following traditional agricultural practices. Some large farmers and money lenders in the village provided loans to small peasants at exorbitant interest rates. Of late, farmers have started adopting improved agricultural technologies including machinery. This resulted in increased farm-credit needs of farmers. Presently, sufficient institutional credit facilities are available in the village, which cater to the farmers' credit needs at reasonable interest rates. The government also supports them with several subsidies on, for example, credit (waive-off), interest on borrowing, purchase of machinery, etc. The number of salaried people has increased over time.



Technological: The agricultural development has taken place through technological advancement in terms of adoption of improved varieties, access to inputs and machinery at village level, increased irrigation facility through sprinkler and drip, and crop/farm diversification.

More than 50% of the farmers now use improved/hybrid seeds, chemical fertilizers, weedicides and fungicides to increase farm productivity and enhance their net incomes. More than 90 percent farmers are using Maldandi variety of sorghum. In case of pigeonpea, farmers have adopted improved and hybrid pigeonpea cultivars like ICPL 87119 and ICPH 2671.

The use of chemical fertilizers and pesticides has increased, while the farm yard manure (FYM) usage has declined. There are two agriculture input shops in



the village that supply improved seeds, fertilizers and pesticides. Farmers also use sprinkler and drip irrigation to increase the efficiency of available limited water. There are more than 45 sprinkler sets and 30 drip sets in the village. Use of tractor is common for threshing grains, land preparation and transportation of farm produce. There are a total of 11 tractors and 7 threshers in the village. Threshers are being used for threshing wheat, sorghum, mungbean, pigeonpea, chickpea, etc.

An agriculture extension service center was opened in 2006. Presently, there are 16 computers in the village. Almost every household in the village has mobile phone connectivity, which is one of the important media available to access agricultural information.

Institutional: Institutionally, the village has developed over time. Presently, there is a post office, BSNL telephone office, veterinary hospital, Primary Health Centre, Bank of Maharashtra and District Central Cooperative bank, four educational institutions and two fair price shops in the village.

The village has a branch of District Central Cooperative (DCC) Bank established in 1985 as well as that of Bank of Maharashtra established in 1983. It also has a registered Primary Agricultural Credit Society (PACS), which is functioning satisfactorily since its establishment in



1957. This PACS is attached to the DCC Bank, Kalman branch. The village has three private milk dairies.

A Primary Health Centre (PHC) was established in the village in the year 1985. Since then, it has been providing novel health care service to the villagers in terms of family planning, immunization, vaccination, food for pregnant women and newly born babies, etc. These services of PHC are implemented by an Auxiliary Nurse and Midwife (ANM). In addition, a Multi-Purpose Worker (MPW) supported by the Gram Panchayat is attached to PHC for facilitating these activities. Besides, there are five private doctors providing necessary medical care to the villagers on payment basis. There is one private medical store in the village.

Infrastructural: The infrastructure in the village has grown tremendously over time. The village was electrified in 1967 for providing electricity for domestic and commercial purposes. Electricity is used for running flour mills, lifting water for irrigation, and for domestic purposes. Street lights are provided by the panchayat on all the village roads. About 85% of the houses have been



electrified. The villagers were provided tap connections for drinking water supply in 1983. The village has an approach road to the city. The village has access to the State Road Transport Corporation Bus service, with buses passing through the village about 5 times a day. In addition, private jeeps and minibuses are also available in the village. There is a weekly market on Saturday in the village, which was started way back in the 1960s. The other infrastructure facilities available in the village include cement roads, mini-assembly, medical stores, agricultural inputs and machinery shops and flour mills, among others.

Educational: Literacy and educational status of the villagers has improved significantly due to provision of higher education facility in the village coupled with



increased household incomes. The literacy rate amongst males is 89 percent while that of females is 81 percent, the overall being 86.5 percent (2001 Census).

In Kalman, the exact date of establishment of the school is not known but facilities were available for voluntary education since 1870. As of now, the education facility available in the village is up to Standard 12. There are four Anganwadis and one each of Primary School (started in 1962), Secondary School (1962), Higher Secondary School (1966) and Junior College (up to Standard 12) (2007). The present enrolment (2010-11) in all the aforesaid schools put together is 928 (474 males and 454 females). There are two "Gram Shikshana Samithis" (Village Education Committees) in the village started in 1995; one for the primary school and the other for secondary and higher secondary schools together. The high schools and higher secondary schools are run by Education Societies, whereas the primary school is run by Zilla Parishad, Solapur under the supervision of these "Gram Shikshana Samithis".

Religious: One old temple of Lord Khandoba was built in 1664, and another temple dates back to the 13th century. There are nine temples and one mosque in the village in addition to three bhajan mandals.



III. BASIC STATISTICS OF THE VILLAGE

A) LOCATION / ACCESSIBILITY

1. Village: Kalman	2. Taluka: North Solapur		3. District: Solapur
4. State: Maharashtra	5. PIN: 413	222	
6. GPS values:	(a) Latitude: 17°55.1 ′ N	(b) Longitude: 75°47.6′ I	(c) Altitude (m): 491
7. Nearest town:	(a) Name: Vairag	(b) Distance from village	(km): 15
8. Nearest State Highway:	(a) Number: SH 151	(b) Distance from village	(km): 6
9. Nearest National Highway	/: (a) Number: NH 9	(b) Distance from village	(km): 35
10. Name of the Village Pan	chayat in which the village fa	alls: Kalman	
11. Details of the Sarpanch/	Village Panchayat President:		
(a) Name: Ms Shobhaba	i Bhujing Lambe (b)	Cell No.: 08975446663	
12 Dataile af the Cross Course			

- 12. Details of the Gram Sevak/Agricultural Assistant:
 - (a) Name: Mr Nitin Bhimashankar Chaudhari (b) Cell No.: 09850130089

B) DEMOGRAPHY (as on 1 September 2007)

1. Population (No): **3,344** 2. Households (No): **660** 3. Voters (No): **2,837** 4. Farmer accounts/Khatas (No): **691**

5. Classification of population:

Category	No.	Farm Size*	No.	Religion	No.	Caste	No.	Lit	eracy	No.	Gender	No.
SC	304	Landless	644	Hindu	3193	Maratha	1118		terates (<4)		Male	1277
ST	143	Marginal	459	Muslim	151	Shepherd	509		erates (4-10)		Female	1168
OBC	1,546	Small	892			Mali	404	Ma	atriculates	223	Children	899
General	1,351	Medium	801			Navboudha	311	Gr	aduates	111		
		Large	548			Koshti	217	Po	st-graduates	65		
						Wani	159					
	1		1			Muslim	151				1	
	Caste Gro	up-wise Populati	on			Cobbler	128		Literacy	Level-wis	e Population	
						Wadar	73					
						Carpenter	72					
						Barber	49					
			40%			Washerman	38				43%	
	47%					Potter	28	8 45%				
						Brahmin	20					
						Koli	20					
						Berad	15					
		4% 9%				Jangam	15				7%	
						Sonar	7			2% 3%		
		C GEN SC ST]			Gosavi	5	 Illiterates (<4) Literates (4-10) Matriculates Graduates Post-gradua 			duates	
						Swami	2					
						Blacksmith	2					
						Teli	1					
Total	3,344		3,344		3,344		3,344			3,344		3,344

*<0.2ac=Landless; 0.2-<2.5ac=Marginal; 2.5-<5ac=Small; 5-10ac=Medium; >10ac=Large.

Category	No.	Farm Size*	No.	Caste	No.	Religion	No.	Main occupation	No.
SC	58	Landless	160	Maratha	224	Hindu	632	Farming	261
ST	29	Marginal	96	Shepherd	90	Muslim	28	Agril.labor	160
OBC	281	Small	169	Mali	86			Non-agril.labor	72
General	292	Medium	146	Navboudha	58			Caste occupation	25
		Large	89	Koshti	40			Others\$	142
				Wani	33				
1	Farm Size-wise	Households		Muslim	28			Main Occupation-wise Househol	ds
				Cobbler	26				
	24%			Carpenter	17				
24%				Wadar	15			24%	
				Barber	9				
				Potter	8				
		2221		Washerman	6			2007	
26%		22%		Brahmin	5			39%	2%
				Koli	4				.270
				Berad	3				
				Jangam	3				
	13%	15%		Gosavi	1			4% 11%	
				Swami	1				
			_	Blacksmith	1			Farming Agril. Labor Others	1
Small	Landless 📕 Me	dium 📕 Marginal 📕 Lar	ge	Sonar	1			Non-agril. Labor Caste occupation	
				Teli	1				
Total	660		660		660		660		660

6. Classification of households:

\$ include salaried, money lenders, middlemen, service sector, etc. * As defined in B(5) overleaf.

C) LAND USE PATTERN (2009-10)

1. Distribution of Geographical Area:	Ha
Agricultural land	2,511
Permanent fallow	17
Grazing lands	21
Land used for roads, buildings & non-agril. purposes	19
Gawthan (used for Government housing schemes)	17
Current fallow	7
Total Geographical Area	2,592

2. Cropped Area	Acres
Kharif	3,113
Rabi	2,835
Summer	180
Annual/Perennial crops	62
Gross Cropped Area	6,190
3. Irrigated Area	Acres
Kharif	310
Kharif Rabi	310 950
Rabi	950

D) LAND RESOURCES

Soil type	% area	Sources	Total No.	Working No.	Approx. depth (ft) of working wells	Irrigable area (Ac/year)
Deep black	7	Borewells	190	165	340	600
Medium black	23	Open wells	315	300	58	902
Shallow black	47				Approx. land area	
Loam soil	8				covered (ac)	
Murrum	13	Ponds	3	0	0.4	0
Problematic	2	Tanks	3	0	2.1	0
3. Rainfall:		(a) Quantity (mm (b) No. of rainy d	1 '	Normal: 550 Normal: 30	Actual (Jun'09-№ Actual (Jun'09-№	

E) CROP PRODUCTION (2009-10)

Kha	rif	Rabi		Sun	nmer	Annual/Peren	nial Crops
Crops	Area(ac)	Crops	Area(ac)	Crops	Area(ac)	Crops	Area(ac)
Pigeonpea	2,050	Sorghum	2,155	Groundnut	50	Grape	33
Maize	212	Chickpea	138	Fodder	25	Citrus	12
Sunflower	175	Maize	112	Vegetables	88	Banana	12
Groundnut	75	Wheat	102	Others	17	Coconut	3
Vegetables	300	Sunflower	88			Pomegranate	1
Other pulses	150	Vegetables	152			Guava	1
Others	151	Others	88				
Total	3,113	Total	2,835	Total	180	Total	62

F) ASSETS (as on 1 June 2010)

1. Productive Assets:

I. Productive Assets:							
Livestock		Heavy machinery					
Туре	No.	Туре	No.				
Cow (indigenous)	106	Tractor	11				
Cow (exotic)	190	Thresher	7				
Buffalo	155	Bullock Cart	61				
Bullock	270	Auto	1				
Sheep	97	Van	9				
Goat	387	Jeep	4				
Poultry	624	Tum-Tum	11				
		Flour mill	8				
Milk sale (lt/day)	560	CGM#	3				
		Others	11				

2. Consumer Assets:				
No.				
223				
24				
2				
4				
165				
9				
182				
4				

Computer

3. Buildings:

Туре	No.
Houses-Pucca	570
Houses-Kuchcha	90
Cattle sheds	196
Irrigation pump houses	245
Storage godowns	2

#Chilli Grinding Machine.

G) BASIC NEEDS (as on 31 December 2010)

- Type of food (# of households): (a) Vegetarian: 214 1.
- Type of clothes: (a) Men: Pant-Shirt, Dhoti-Shirt 2.
- 3. Type of houses: (a) Pucca: 570

H) INFRASTRUCTURE (as on 31 December 2010)

- 1. Village electrification: Yes
- 2. Is there a Tar/metal/cement road to village? Yes
- 3. Is there a tar/metal/cement road inside the village? Yes
- 4. Public transport facility: Public/private bus facility to village available?: Yes No.of trips/day from town to village: 3 Other modes of travel available? Yes Available modes: Auto, Jeep, Tum Tum
- 5. Drinking water facility: Yes Tap connections available? Yes
- 6. Public toilet/urinal facility: Yes
- 7. Public health facility: Yes
- 8. Veterinary health facility: Yes
- Banking facility: Yes No. of PACS: 1 9.

10. Educational facilities:

Kalman Village - At a Glance

Level	Number of institutions	Enrolm	nent (number)
		Male	Female
Pre-primary (Anganwadi)	4	101	99
Primary (1-4 years)	1	123	123
Secondary (5-7 years)	1	116	99
Higher Secondary (8-10 years)	1	129	102
College (11-12 years)	1	5	31

(b) Non-vegetarian: 446

(b) Women: Sari and blouse

16

(b) Kuchcha: **90**

No. of houses having access to electricity: 582

Length of the road (m): 425

Source(s): Open well/Bore well

- No. of connections: 268
- No. of toilets: 5
- No. of PHC: 1 Private Doctors: 4

Commercial Bank: 1

Pvt. Bank: 1

11. Agricultural input shops:

Input	Available in village?	If no, nearest available pl	ace Distance from village (kn
Seed	Yes		
Fertilizer	Yes		
Pesticide	Yes		
Machinery – Purchase	No	Solapur, Barshi	40 km each
Machinery – Custom hiring	Yes		
12. Agricultural output market:			
Weekly shandy in the village	o? Vas Which de	y? Saturday	
No. of wholesale traders/con		, ,	
	0	0 0	
 Storage godowns/warehouse 	•	acity of all (tons): 10	
14. Other business units (numbe	er):		
Grocery shop: 18	PDS Shop: 2	Keroser	ne shop: 1
Hotel/Canteen: 4	Flour Mill: 8	Chilli/s	pices grinding shop: 5
Meat shop: 2	Liquor shop: 4	Pan sho	•
Carpenter: 5	Blacksmith: 1	Goldsm	nith: 2 (Weekly)
Cobbler: 2	Potter: 2	Mason:	25
TV/Radio mechanic: 7	Cycle repair sho	op: 4 Motorc	ycle repair shop: 3
Money lenders: 5			
5. Other institutions (number):			
SHG/Sakhi Mandal: 25	Milk Dairies: 3	Post Of	fice: 1
Dispute Resolution Committe	ee: 1 Youth Club: 1	Bhajan	Mandal: 3
Drama Mandal: 3	Chit Fund: 7		unity Hall: 1
Mini Assembly: 1			-/
16. Place of worship (No):	Temple: 9	Mosque	e: 1
) GOVERNMENT WELFARE PR	•	•	
 Government programs recent 			
SN Name of the Government P	, , , , , , , , , , , , , , , , , , , ,	<u> </u>	ficiaries (No. of households)
SixName of the Government I1Public Distribution System			Ration Cards – 947)

SN	Name of the Government Program	Beneficiaries (No. of households)
1	Public Distribution System	660 (Ration Cards – 947)
2	Old Age Pension	70
3	Widow Pension	5
4	Indira Awas Yojana	14
5	Family Planning	15
6	Self Help Groups	277
7	Subsidies on Farm Well (BPL households)	2

About ICRISAT

The International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) is a non-profit, non-political organization that conducts agricultural research for development in Asia and sub-Saharan Africa with a wide array of partners throughout the world. Covering 6.5 million square kilometers of land in 55 countries, the semi-arid tropics have over 2 billion people, and 644 million of these are the poorest of the poor. ICRISAT and its partners help empower these poor people to overcome poverty, hunger, malnutrition and a degraded environment through better and more resilient agriculture.

ICRISAT is headquartered in Hyderabad, Andhra Pradesh, India, with two regional hubs and four country offices in sub-Saharan Africa. It belongs to the Consortium of Centers supported by the Consultative Group on International Agricultural Research (CGIAR).

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