

**A Comparative Study of Children's Participation in Decision
Making at Sweden and India, Uttarakhand State**

**Dissertation Report
on
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**School of Rural Management
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CERTIFICATE

This is to certify that **Mr. Manish Singh** student of PGDRM, Batch 3rd School of Rural Management, Institute of Health Management Research; Jaipur has undergone his Dissertation on the topic entitled **“To Understand the Potential of Vegetable Cultivation at Center For Microfinance under the (MPoWeR project) in Sanchore Block, Jalore District (Rajasthan)”** from 11st March 2014 to 25th April 2014.

The Candidate has successfully carried out the study assigned to him during dissertation and his approach to study has been scientific and analytical. This dissertation is partial fulfillment of the course requirements for the award of Post Graduate Diploma in Rural Management.

I wish him all success in all his future endeavors.

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Manish Singh

Abbreviations

IHMR	Institute of health management Research
CmF	Center For Microfinance
MPoWeR	Mitigation of Poverty in Western Region
SRTT	Shri Ratan Tata Trust
IFAD	International Fund Agriculture Development
IIFDC	Indian Farm Forestry Development Cooperative
UDF	Urmidar Innovative Action and Research Foundation
BPL	Below Poverty Line
CAZARI	Central Arid Zone Research Institute
NABARD	National Bank For Agriculture And Rural Development
RRB	Regional Rural Bank
DCC BANK	District Cooperative Central Bank
HH	Household
SHG	Self Help Group
SC	Schedule Caste
ST	Schedule Tribe
OBC	Other Backward Class
FGD	Focus Group Discussion

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Executive summary

The study attempts to understand the potential of vegetable cultivation in Sanchoe block. It was conducted in project area villages of MPOWER project that works for enhancing livelihood opportunities for small and marginal farmers. Sanchoe (formerly Satyapur) is a town in Jalore district of Rajasthan India. It is the headquarters of the tehsil by the same name. It contains two Panchayat Samiti first is Sanchoe and Second one is Chitalwana. Located on National Highway No 15 the town is situated 154 km from Jalore. It is bounded on the north by Barmer district and in south by Banaskantha district of Gujarat.

The study focused on objectives like understanding the existing scenario of vegetable cultivation throughout of the year; identifying the potential and most commercial viable vegetable grown and understanding the existing backward and forward linkages for production and marketing of vegetables

The quality of any research is judged on the basis of its methodological approach. It is a way to systematically solve the research problem. It explains not only the steps adopted by a researcher in studying the research problem but also the logic behind them. Multi Random sampling was used. In the initial stage the lists of self help group members were collected with the help of FNGO. From these a selection was made of those farmers who are engaged in vegetable cultivation. Both quantitative and qualitative techniques were used. Quantitative research was done through semi-structured schedule that was administered to the HH 120 selected in the sampling process. Qualitative research was carried out through, In-depth interviews, 10 Focus Group Discussions with farmers. For market survey of feasibility of marketability of vegetables a survey was carried out with the retailers as well the mandi in Sanchoe city

Most part of irrigated land was covered by the Narmada canal in the study area. Aforesaid information proves that most of farmers were kept sufficient land for the vegetable cultivation due to availability of various resources and irrigation facility in the occupied area.

Majority of farmers were growing onion and brinjal owing to more consumption by the community. Highest income generation was found from the shakerkand, cabbage and onion to the farmers. Finally it had been concluded that vegetables are the short duration crops which required minimum land holding for growing and gives high production and revenue to the

farmers so that it would be better livelihood source to the community in that area Vegetables can make significantly enhance the livelihood opportunities of small farmers. Vegetable production needs only a small area of land, with minimal capital outlay and can provide access to a valuable food under subsistence conditions, but also has the potential to provide an initial step towards establishing an income base for poorer households.

CHAPTER 1

Introduction: - India is the second largest vegetables producer in the world next to China. The vegetables crops in India occupy only 2.8 percent of the total cultivable land. Vegetable are so common in human diet that a meal without a vegetable is supposed to be incomplete in any part of the world. Its play an important role in human diet and is essential for balanced diet that contributes to good health and prevention of diseases. They contain valuable food ingredients which can be successfully utilized to build up and repair the body. They are valued for their high carbohydrate, vitamin, mineral and fibre contents. Vegetables make up a significant proportion of the diet of most of the people and the production of vegetables is a significant factor in ensuring that people have an adequate intake of many essential vitamins, minerals and carbohydrates every day.

Vegetables crops are useful in rotational system of farming to maintain the fertility of soil. Vegetables are the main source of vitamins and minerals. The vegetable crops also offer better crop diversification and crop intensification. Vegetables farming seem to be a good replacement for wheat paddy rotation, as vegetable crops give high returns per unit area as compared to rice and wheat. Vegetable crops are more labour intensive as compared to cereals and as a result they provide more employment opportunities for the laboring humans. By providing better employment opportunities to family labour, vegetables solve the problem of disguised unemployment in village. Vegetables can make significantly enhance the livelihood opportunities of small farmers. Vegetable production needs only a small area of land, with minimal capital outlay and can provide access to a valuable food under subsistence conditions, but also has the potential to provide an initial step towards establishing an income base for poorer households.

Vegetable are short duration crops which give more yields as compared to crops like wheat / rice. And vegetable growing gives the farmer opportunity for more than three cropping cycles as is the case with most other crops.

Our country is gifted with a wide range of agro- climate condition which enables the production of vegetables through out of the year in a one part country or the other that contributes to maintaining a continuous supply of fresh vegetable all the year round. These off season vegetables are in great demand in same market as well as in neighboring country. As majority of the population in India is vegetarian so, there is a strong need to increase production of vegetables.

Area profile: - Sanchor (formerly Satyapur) is a town in Jalore district of Rajasthan India. It is the headquarters of the tehsil by the same name. It contains two Panchayat Samiti first is Sanchore and Second one is Chitalwana. Located on National Highway No 15 the town is situated 154 km from Jalore. It is bounded on the north by Barmer district and in south by Banaskantha district of Gujarat.

An oil exploration company in 2004 discovered oil in Barmer-Sanchore basin. The Narmada Canal which originates from Gujarat enters Rajasthan state near village Silu of Sanchore Tehsil and irrigates one 1,10,000 hectare land of the regions.

There is a well known Jain temple in the town called Godiji Parshwanath which is name after one of the Jain Tithankara Lord Parshwanath. There are in all 9 Jain Temples in Sanchore & every Temple has its own significance & history. Pathmeda village near Sanchore has Copal Govardhan Gaushala one of the largest Gaushalas in India .Spreads over 200 acres (0.81 km²) the Gaushala takes care of more than 15, 000 cattle population.

Climate: - The characteristic features of the climate of the block are its dryness, extremes of temperature and deficient rainfall that is erratically distributed. The year may be divided into four seasons, winter from November to March, summer season from April to June, monsoon from July to mid-September, and the post-monsoon season up to the end of October. The normal annual rainfall at the district headquarters is 27.75 cm. The rainfall decreases towards the west. The average number of rainy days (days with rainfall of 2.5 mm. or more) in a year is only 15 – 20 days taking the district as a whole. The winter season sets in by November, when both day and night temperatures begin to drop, reaching the lowest point in January. Temperatures rise rapidly after March and reach up to 48 degrees in May-June. Throughout summer, the heat is intense and scorching strong winds prevail. Even during monsoon, the air is dry barring the few fateful spells of rain.

Soil: - The soils of the district are broadly desert type. Qualitatively the soils are very poor and devoid of humus content. These soils are very deep and sandy, associated with dunes; inter dunes and sandy plain covering about 31 percent of the area. Dunes are the spectacular feature of the district and these occur scattered all over the area. In some parts of Sanchoe, red desert soils are also found. Soil texture varies from sandy loam to sandy clay loam, becoming slightly heavier with depth.

Demography: - As of 2011 India census, Sanchoe had a population of 487651. Males constitute 254252 of the population and females 233399.

Literacy rate: - literacy rate of sanchoe in 2011 were found 56.97 compared 58.99 and male literacy rate 72.9, female literacy rate 39.68 which is much lower than the state average for Rajasthan.

Population Density: - The population density is very thin less than 136 sq km in sanchoe block, although there are few villages with higher density. Average house hold size varies between five and eight people per HH. There are few villages with higher with large population more than 1000 household and population more than 1200 each.

Migration for the employment though mostly seasonal is highly prevalent with almost every family having at least one person migrating to other parts of state or outside the state to Gujarat, Maharashtra, and Karnataka, etc. Most of this migration is single male with women, children and old people being left behind in villages.

Social Structure: - The study area is occupied by different communities like i.e. Schedule caste (Meghwal, Methar, Harijan,), Schedule Tribe (Rebari, Jogi, Bhil) other Backward Caste (Vishnoi, Kalbi Choudhary, Nai, Darji, Saini, Kumhar, Jat) and General Caste (Rajput, Rajpurohit, Jain, Sunar etc.). Vishnoi and kalbi chaudhary constitute a very high portion of population and are the dominant communities in Sanchoe block. Caste based discrimination still persists especially in the interior pockets of the region.

MPoWeR Project: A Brief - Mitigating Poverty in Western Rajasthan (MPOWER) is a poverty reduction initiative that is jointly supported and funded by International fund agriculture development (IFAD), Sir Ratan Tata Trust (SRTT) and the Government of Rajasthan. The project is designed to reduce

poverty through the development of grass root level institutions and support to various livelihoods activities and setting up of services delivery systems initially.

The project area of MPOWER falls in the hot and arid, zone. The project targets all households below poverty line (BPL) category and focuses on organizing women for empowerment and sustainable livelihoods

Goal: - To improve the quality of life of the poor and create sustainable livelihood opportunities for vulnerable and marginalized groups in the project area

Objective:-

- Drought mitigation and water securitization
- Income enhancement and employment generation
- Market led productivity improvements
- Favourable market access in terms of realizing better producer prices (farm gate prices) and backward –forward linkages
- Empowerment and mainstreaming of women, the marginalized and vulnerable groups and

The Implementation Partner Agency: -These are all partner agency and they responsible for the facilitation of the program.

Center for microfinance (CmF), Indian farm forestry Development,

Ambuja cement foundation, Srijan

Urmul, Gravis, SURE, IIRD, Pradan

Organization Profile:-

Background: - Centre for microfinance (CmF) is an autonomous organization registered under the Rajasthan Societies Act, 1958. It came into existence in 2005 in response to the need for an agency to guide the growth of microfinance and particularly, community-based microfinance in Rajasthan. CmF employs high quality professionals to provide a wide range of technical and

other support services to CmF players. Given its mandate the centre places value on networking and collaborations with stakeholders.

Prof. V.S. Vyas, an eminent economist, conducted a feasibility study in 2005 and suggested the setting up of an agency to deepen, widen and upscale the sector in Rajasthan. Sir Ratan Tata Trust (SRTT) supported the idea for such an agency acting as a ‘knowledge and support centre’ for micro finance sector in Rajasthan. A steering committee under the chairmanship of N.S. Sisodia with representatives from the state government, banks, voluntary organizations and eminent citizens, was formed to formulate the role, strategy and action plan of CmF.

As nodal agency of the Sakh Se Vikas (SSV) programme supported by SRTT, CmF has contributed significantly by providing technical support to SSV partner NGOs who have a combined outreach to more than 50,000 poor households in Rajasthan.

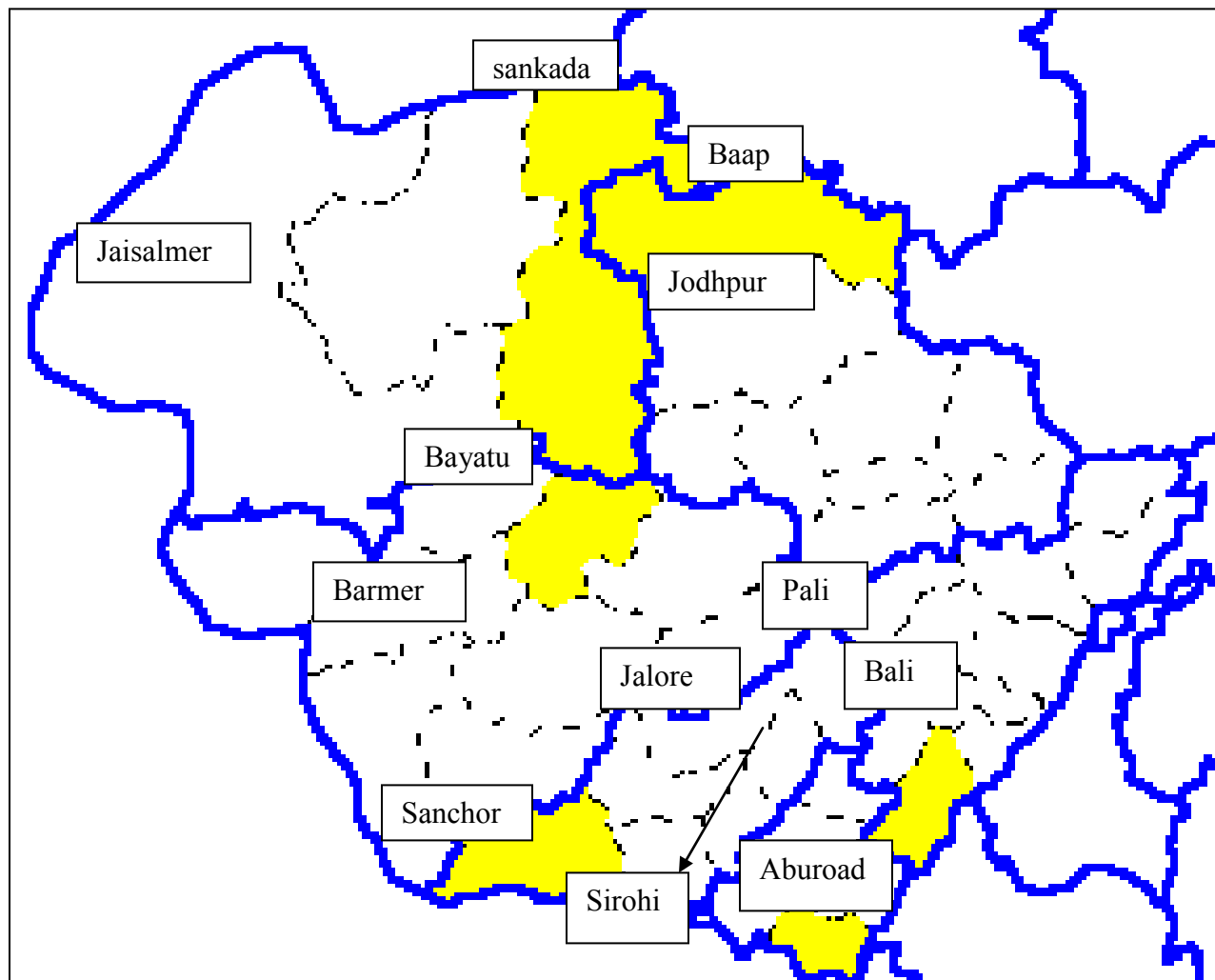
Vision: - Timely availability of microfinance services on fair terms and with dignity to help people enhance their livelihood”

Mission- CmF believes that poor have the right to credit and other financial services like the other people. It is a challenge for all those who are working for/with poor to make microfinance services available to them on competitive terms.

The project area: - The project area of MPOWER falls in the hot and arid, zone and project existing in Jodhpur division area. Blocks of Bap (**Jodhpur**), Sankra (**Jaisalmer**), Baitu (**Barmer**), Bali (**Pali**), Abu Road (**Sirohi**) and Sanchore (Jalore) and consulted with the stakeholders including the respective Zilla Parishad officials and some of the NGOs working in the area, **CAZRI**, **NABARD**, Commercial Banks, DCC Banks, RRBs, private sector agencies and traders. It also undertook field visits to see some of the project area villages with an overall objective of learning from the experiences gained by the communities and the stakeholders. The project targets all households below poverty line (BPL) category and focuses on organizing women for empowerment and sustainable livelihoods.

Project Area

Six Poorest Block in Jodhpur Division (One block each district)



CHAPTER 2

Literature Review

This chapter is devoted to review the studies closely related to the present research work. In order to have a clear and in-depth understanding of the research investigation to be carried out and to choose the suitable analytical technique, work done by the various researchers pertinent to the present study has been reviewed. The relevant studies have been reviewed in chronological order under the following sub-headings:

The studies related to find out the present scenario of vegetable cultivation, resource use efficiency in vegetables cultivation and existing approach of backward and forward linkage vegetables are reviewed.

Garg and Prashad (1974) conducted a study on comparative profitability of vegetable crops in Kanpur city of Uttar Pradesh in India. The study showed that the highest net returns per hectare were obtained from tomato, potato and lowest return from brinjal. The results further showed that the investment and labour used on vegetables were the highest for onion and lowest for 'Lawki'.

Rathore (1975) in their study on resources use efficiency and returns from cultivation of commercial crops in Himachal Pradesh during 1973 -74 revealed that the average cost of cultivation and cost of production of chillies were Rs. 5,958.75 per hectare and Rs. 620.70 per quintal. Human labour and bullock labours were the important cost items which accounted 40.29 percent and 6.15 percent of the total cost.

Kapila (1985) studied vegetable production for diversification of the farm economy". The study was conducted in Sapruon valley of district Solan in Himachal Pradesh which is known for the quality of vegetables. The study emphasized that diversification towards intensive vegetable cultivation could enable farmers to get yields which are ten times higher than cereal crops per unit of land. The diversification of farming with vegetable production helps even the small farmers to earn sufficient income to make their livelihood. The results showed that gross income

of more than Rs.1,15,000 per hectare and a net increase of about Rs. 70,000 to Rs. 90,000 per hectare per year could be obtained by producing cauliflower seeds or two crops of tomatoes in the valley. It was concluded that the farmers can earn high income annually by adopting diversification towards vegetable growing.

Mishra and Saraf (1981) analyzed the economics of vegetable farming in the vicinity of Jabalpur city. The objective of study was to estimate the costs and returns from different vegetables. They also estimated the cost and returns of wheat and compared it with the cost and returns of vegetables. They further worked out the cost of cultivation per hectare of tomato crop which was maximum in small group and minimum in medium group and the returns were the highest in medium group followed by small and large farms.

Warner (1991) conducted a study in the German Republic to examine the prospect for improving farm income from vegetable farming. The result showed that income from vegetable farming was much higher than the income from traditional agriculture production. Small farmers could experience the most significant increase in income by taking up vegetable farming due to their higher degree of under employment prior to taking up vegetable farming.

Srivastava (1993) made an attempt to examine the economics of vegetable production in the sub areas of Patna and its marketing in Patna as well as in the international market. Study showed that the cost of cultivation per hectare was highest Rs.13,051.85 for cowpea. The highest productivity was recorded in case of cabbage and cauliflower (275.23 q/ha). Highest net returns per hectare were found in cowpea followed by sponge guard. Capital output ratio was highest for cauliflower and cabbage (1:2:84) and lowest (1:2:02) for potato. .

Mishra and Vishwakarma (1999) conducted a study in Azamgarh district of Uttar Pradesh to work out the cost of cultivation of chillies. It was found that on an average input cost came out to be Rs. 22439.22 where as the average gross income came out to be Rs. 50957.45 per hectare. So on an average net income come out to be Rs. 28518 per hectare.

Singh and Vishist (1999) made an attempt to examine the input output relationship, relative profitability and the existing marketing system of major vegetable crops. Two stage random sampling technique was used to select the sample of vegetable growers. A sample of 60 vegetable growers proportionally allocated to villages was selected. Cobb -Douglas production

function was used to study the input-output relationships. Results revealed that tomato was the most profitable crop in kharif season and cauliflower in rabi season. It further showed that producers' share in terms of consumers' rupee was very low due to market intermediaries. It was found that major hurdles in the production of vegetables were lack of technical know-how and natural calamities.

Radha and Prasad (2001) made an attempt to study economics of production and marketing of vegetables in Karim Nagar district of Andhra Pradesh. The results revealed that though the cost of cultivation was highest in tomato yet net returns were high in cauliflower and cabbage.

Prasad (2001) conducted a farm level study to determine the vegetable production and marketing in Bihar and concluded that the vegetable crops were more profitable than other crops particularly food crops and these crops were widely cultivated by small and marginal farmers.

Kumar and Singh (2002) studied the problems of vegetable production in Bharatpur district of Rajasthan and reported that the vegetable growers faced the problems such as non-availability of inputs at right time, poor and insufficient quality of inputs, non-availability of desired tomato varieties in the market, high cost of inputs, lack of knowledge about the correct method of their use and non-availability of subsidy. They further pointed out that these problems discouraged the vegetable growers to give boost to vegetable farming. They suggested that extensive demonstrations of improved and high yielding varieties of vegetable crops should be given;

definite provisions should be made for timely supply of crucial inputs at reasonable price and in adequate quantity to sustain vegetable production on a profitable basis.

Joshi and Srivastava (2003) conducted experiments during winter season of 1999-2000 and 2000-01 in an unheated poly house. Six dates of sowing were tested for bitter gourd in randomized block design. They found that the plants from earliest sowing date took least time (10 days) for seed germination during both the years, which was even lesser than one third compared to the time taken by other dates of sowing. The increased time taken by successive dates of sowing was obviously due to progressive decrease in the atmospheric and soil temperatures.

Sekhon and Kaur (2004) studied the production scenario, economics and benefit of okra cultivation. The total paid cash cost per acre were worked out as 96.32 per cent of the total cost. Picking of okra is single most important item, which accounted for 58 per cent of the total cost. Among the marketing cost the cost of transportation constitutes two per cent because the market was situated in village itself or near by. The total paid out costs were worked out to be Rs. 17,950 per acre for the year 2000. Gross returns came out to be Rs. 25000 per acre for okra and Rs. 10335 for paddy. The returns over variable cost were calculated as Rs. 7050 per acre, which is higher than its competing crop paddy with Rs. 5198 per acre.

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Singh and Sirohi (2008) examined that protected cultivation vegetables offers distinct advantages of quality, productivity and favourable market price to the growers. Vegetable growers can substantially increase their income by protected cultivation of vegetables in off-season as the vegetables produced during their normal season generally do not get good returns due to large availability of these vegetables in the markets. Off-season cultivation of cucurbits under low plastic tunnels is one of the most profitable technologies under northern plains of India.

The studies reviewed above have highlighted that the vegetables are more economical as compared to other commercial crops. The returns from the vegetables are more than that of the other crops. From the point of view of most preferred vegetables it was found by all that the returns in tomato are maximum. The present study, therefore, attempts to study the input, yield and returns of net house cultivation in comparison to the traditional practices for cultivation of vegetables. It is to be noted that there are very few studies on vegetable cultivation for the state of Rajasthan which is a pointer to the fact that vegetable growing has become popular only recently and also suggests that there are untapped potential to be explored.

CHAPTER 3

Need of Study

The study intends to find out the experience of vegetable growing as a viable livelihood option around the Sanchole block in Rajasthan state. In particular the study focused on the villages that form part of the command area of the Narmada canal that provided water that was suitable for vegetable growing. As vegetables are highly perishable the study also seeks to identify the bottlenecks in storing vegetables at the farmer level so that farmers are able to get more profits through a better participation in the market at their own terms. The study tried to ascertain the demand for vegetables in and around western Rajasthan. To this effect a market survey was conducted in the Sanchole market.

The learning from the study would be used by the MPOWER project to design appropriate livelihood strategies around vegetable cultivation.

In specific following were the objectives of the study:

Objective of Study

- To understand the existing scenario of vegetable cultivation throughout of the year.
- To identify the potential and most commercial viable vegetable grown.
- To understand the existing backward and forward linkages for production and marketing of vegetables.
-

Research question

Q.1 What is the present scenario of vegetable cultivation in sanchole?

Q.2 Which vegetable crops have the greatest market potential?

Q.3 What are the different constraints creates barrier in the vegetable production and marketing?

CHAPTER 4

RESEARCH METHODOLOGY

The quality of any research is judged on the basis of its methodological approach. It is a way to systematically solve the research problem. It explains not only the steps adopted by a researcher in studying the research problem but also the logic behind them. The methodological frame work adopted for the present study has been discussed under the following headings.

Primary Data Collection

Multi Random sampling was used. In the initial stage the lists of self help group members were collected with the help of FNGO. From these a selection was made of those farmers who are engaged in vegetable cultivation. Both quantitative and qualitative techniques were used. Quantitative research was done through semi-structured schedule that was administered to the HH selected in the sampling process. Qualitative research was carried out through, In-depth interviews, Focus Group Discussions with farmers. For market survey of feasibility of marketability of vegetables a survey was carried out with the retailers as well the mandi in Sanchore city.

Primary data collected with the help of questionnaire, developed and finalized with the MPoWeR.

First phase - collection of data at village level from SHG farmers.

Second phase - FGD at village level from data validation and triangulation.

Third phase – collection of data from vendors at village, gram panchayat and block level

Secondary data collection

For secondary data collection various article papers, previous baseline study of CmF and desk review of readings was done. Rajasthan agriculture department, IIFDC and UDF have provided the information about the farmers which were growing vegetables since last year.

Study Area

present study was conducted in the Sanchore block, Jalore District especially in Narmada canal area. Following villages were covered:

Village Name	Gram Panchayat	Block	District
1.Bhadrana,Maliyo kagoliya,Kola Revarioyo ki Dhani ,Kirawadi	Bhadrana	Sanchore	Jalore
Danta, Meda Jageer	Danta	Sanchore	Jalore
Sankad ,Vasan Devda	Sankad	Sanchore	Jalore
Sarnau , Kuda Paldi – Devda	Sarnau	Sanchore	Jalore
Jakhal, Haryali	Jakhal	Sanchore	Jalore
Hadetar, Lachhdi Falana	Hadetar	Sanchore	Jalore
Paladi, Sidheshwar, Paladi soliankiyan	Paldi	Sanchore	Jalore
Babarla, Achalpur, Vasan - Chouhan Dadusan	Babarla	Sanchore	Jalore
Badi/Chhoti-Virol, Pratapgarh	Virol	Sanchore	Jalore
Surava, Lacchwad	Surava	Sanchore	Jalore

Sampling Method

Sampling method is the way to select few farmers. There are different methods to select. In this study researcher is going with the Systematic Random sampling (From SHG members list which is engaged in vegetable cultivation of that area. Systematic Random sampling refers to the collection of information from self help group members who are conveniently available. It is perhaps the best way of getting some basis information quickly and efficiently. Researcher selected those respondents conveniently, which was available at that spot to provide information regarding research questions. For collecting data for further studies SHG and SHG members are selected on the random basis with the MS office tool. For the sample selection a simple criteria was also decided that each farmers should have engaged in vegetable cultivation.

Sample size

It is the number of farmers selected to get their view. For collecting data following samples sizes were used.

Sample size at village level - 120 (60 from Urmidar foundation SHG members)
(60 from Indian farm forestry development SHG members)
Focus group discussion - 10 FGD and in each at least 8 – 10 members involved
Sample size at vendor level - 10

Limitation of study

- The most part of the study based on the primary data.
- People hesitate to tell about the details regarding income and assets.
- Vegetable producer do not keep record of their package practice and so have provided information based on their recall memory.
- We have adjusted timing of the meetings at night according the availability of local people. Since man are engaged in agriculture during the day. While women's availability determined by their house hold work and other such activity.
- Due to desert area and scattered nature of settlements posed their own time constraint in reaching out to HHs

CHAPTER 5

ANALYSIS AND FINDINGS

Table 1 - Different Category of Household

Different Category of Household				
SC	ST	OBC	Gen	Total
52 (43%)	8 (7%)	42 (35%)	18 (15%)	120

Table 1 shows that major proportion of the surveyed HH belonged to SC category (43%) while STs accounted for the least (7%). Most of the farmers in all categories belonged to the BPL category.

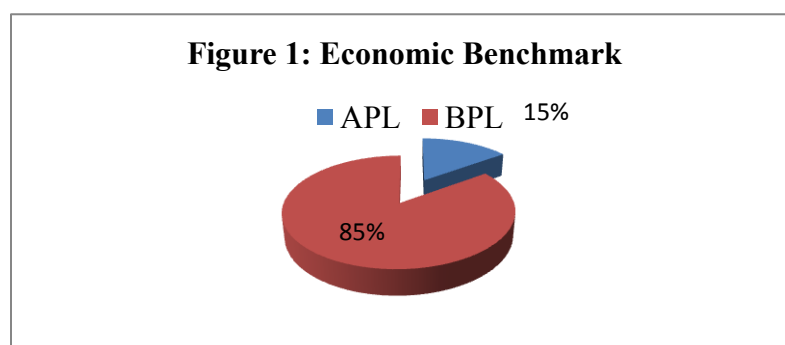


Figure 1 shows the different category of household based on their economic condition from. Most of all farmers under the below poverty line, because generally BPL families members self help group.

Table 2 - Land Holding pattern (In Bighas)

Land Holding Pattern (In Bighas)						
Total land	Cultivable land	Un – cultivable	Irrigated land from total land	Irrigated land from cultivable land	Rainfed land	Average land holding(in Bighas)
1555	1474	81	1349	1349	125	12.95
	95%	5%	87%	92%	8%	

Table 2 shows that 95% and 5% land were found as cultivable land un- cultivated respectively out of total agriculture land surveyed. Irrigated land was found to be 92% of the total cultivated land. most of all 92% land were irrigated from the total cultivated land because most area covered by Narmada canal and tube well 8% land were depend on the rained.

Table 3 – Farmers Classification Land Holding Wise

Farmer classification land holding wise			
Marginal Farmer	Small Farmers	Medium Farmers	Large Farmers
20 (less than 1ha.)	55 (less than 2 ha.)	40(More than 2 ha.)	5 (more than 5 ha.)

From the table show that most of the farmers are small farmers(55) having land of less than 2 hectare. While least 5 farmers having land more than 5 hectare respectively.

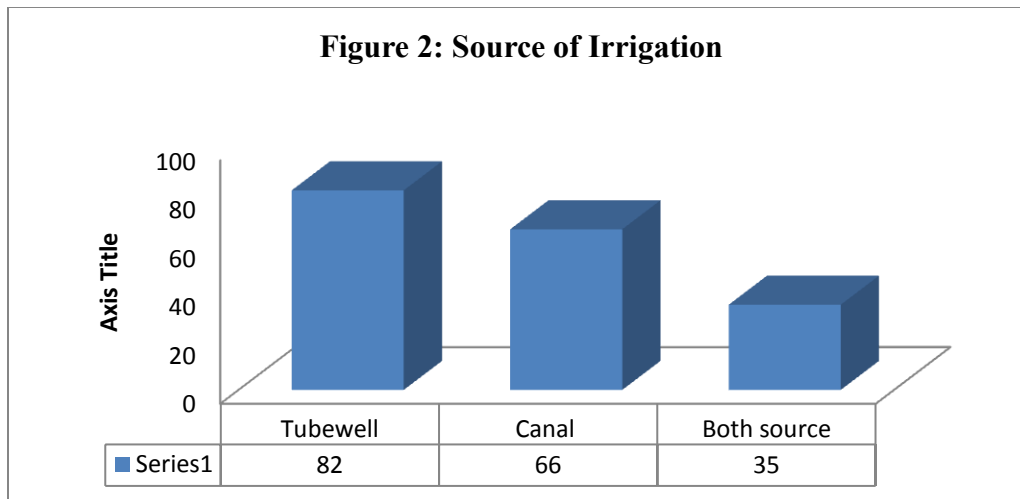
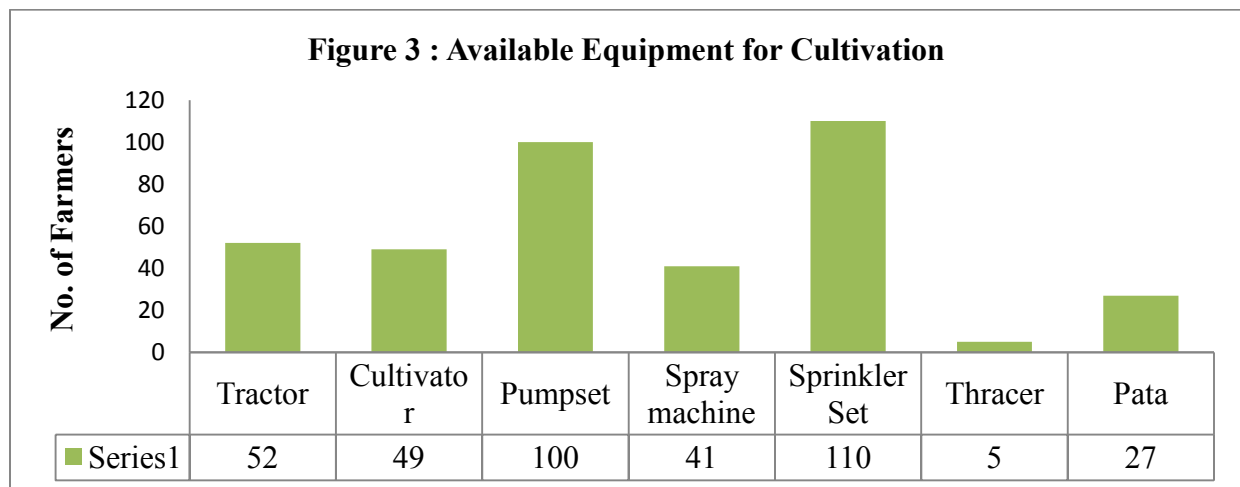


Figure 2 shows the different sources of irrigation farmers rely on. Eighty two farmers were found with tube well facility while sixty six farmers with Narmada canal out of 120 farmers. It is to be noted that 35 farmers use both tubewell and canal. Sanchore is situated in western dry region so that there is absence of well and pond facility for irrigation.

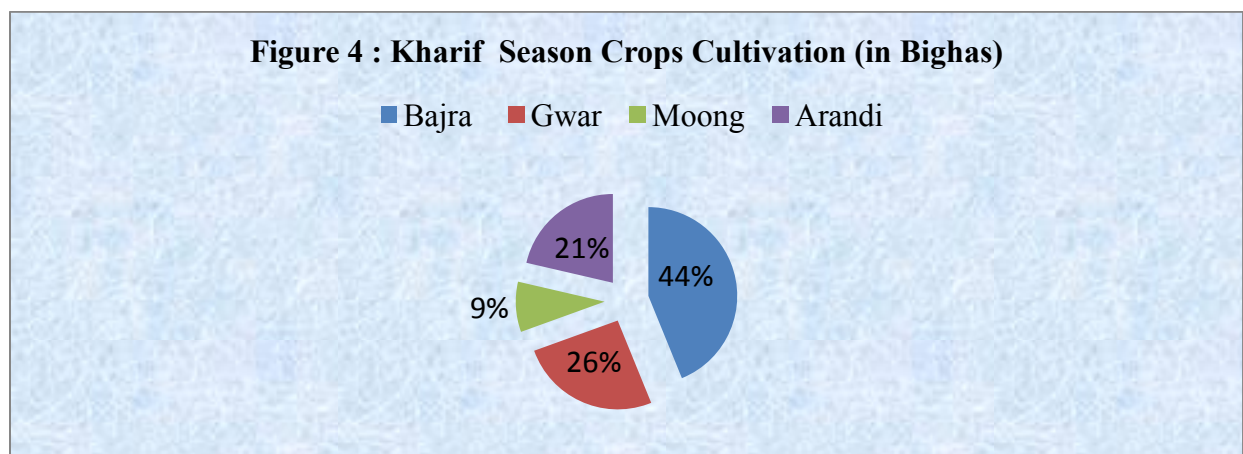


From the figure 3 indicate it is easily depicted that fifty two farmers were kept tractors followed by forty nine, hundred, forty one, one ten, five and twenty seven farmers with cultivator, pump set, spray machine, sprinkler set, thracer and pata respectively out of 120 farmers.

Table 4 - Livestock Availability in Farmer Interviewer

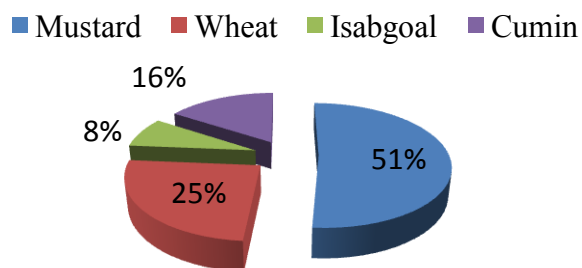
Live Stock Availability In framer interviewers						
Cow	Buffalo	Goat	Sheep	Camel	Bull	Total
288 (28%)	240 (24%)	262 (26%)	231(23%)	0	0	1021

From the table 3 it is suggest that villagers are keeping 28% cows in their homes in large number for their home milk consumption. Cow, Buffaloes are usually kept by the villagers to sell milk in the Dairy or to local market to generate income. And farmers kept goat and sheep in their homes in large number to earn income from them, i.e. when they are in immediate cash need.



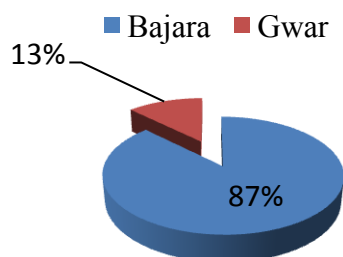
From the figure 4 It has been find out that most of farmers were growing Bajara on 44% land (in Bigha) followed by Gwar, Moong and Arandi on 26%,9% and 21% land respectively out of total cultivated area in Kharif Crops. While the first three are rainfed crops arandi is irrigated.

Figure 5 : Rabi Season Crops cultivation (in Bighas)



From the figure 5 it is easily depicted that 51% area used in mustard cultivation by the farmers and 8% area used in Isabagoal cultivation by the farmers of total cultivable area in Rabi crops.

Figure 6 : Zaid Season Crops Cultivation (in Bighas)

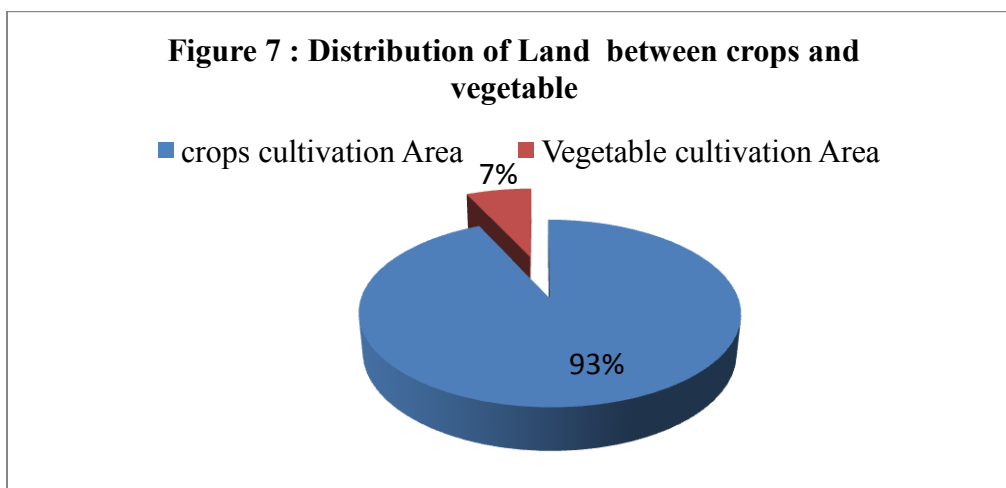


From the figure 6 it is show that majority of farmer (87%) were growing bajara in Zaid season while rest of farmers were engaged in gwar cultivation in the same season.

Table 5 – Annual Income Contribution from Different Season

Annual Income Contribution			
Kharif season	Rabi season	Zaid season	Total Annual income
8,676,000 (41%)	11,301,000 (54%)	1,033,000 (5%)	21,010,000

The table shows that the annual income of farmers for three different seasons of crops. Which contributed as 54%, 41% and 5% for the Rabi season, Kharif season and Zaid season crops respectively?



From the figure 7 it is show that 7% area of land used for the vegetable cultivation while 93% area used for crops cultivation out of total agriculture land by the farmers.

Table 6 – Area under Different Vegetables (In Bighas)

Vegetable Cultivation (In Bighas)										
Brinjal	Onion	Cabbage	Cauliflo wer	Tomato	Gwarfal i	Bottle Gourd	Shakerk and	Chilly	Okra	Total
13.15	28.7	10.9	5.5	7.85	16.65	2.9	9.25	3.5	11.45	109.85
12%	26%	10%	5%	7%	15%	3%	8%	3%	10%	

Form the table 4 it is shows that among the various vegetables highest proportion stands for the Onion production which carried out at 26% land (in Bigha) out of total while least for the Bottle gourd and chilly produced on3% land(in Bigha) for each. The reason behind more production of onion is easily marketable as it has more consumption and it is pest resistant.

Table 7 – Farmer engaged in particular vegetable commodity (No. of Farmers)

Farmers engaged in particular vegetable commodity (No. of farmers)									
Brinjal	Onion	Cabbage	Cauliflower	Tomato	Gwarfali	Bottle Gourd	Shakerkand	Chilly	Okra
67	68	55	33	62	54	32	17	36	52

From the table 5 it is easily depicted that major proportion were found that large numbers of farmers grow onion and brinjals while least numbers of farmers are engaged in shakerkand cultivation.

Table 8 – Vegetable Production and Income(in Bighas, in KGs)

Vegetable Production and Income Per Bigha (In Kgs)										
	Brinjal	Onion	Cabbage	Cauli flower	Tomato	Gwarfali	Bottle Gourd	Shakerkand	Green Chili	Okra
Average production Per Bigha.	2467	3790	2990	3138	2643	3630	2079	4351	1390	2641
Average Income Per Bigha	23057	32202	42092	34970	14662	25327	15131	48778	13387	32891

The above table shows vegetable production per bigha and income from vegetables. It is interesting to observe that although shakerkand has the lowest area of cultivation it yields more production per bigha and fetches the highest income. the most In which highest proportion have

been found for the shakerkand and onion for production per bigha while least for green chili and bottle gourd. Similarly Shakerkand states for highest income generation while least for green chili and bottle gourd.

Table 9 – Total Input Cost in Vegetable Cultivation

Input cost in vegetable cultivation(per Bigha)						
Land preparation	Seed and fertilizer	Chemical and pesticide	Transportation	Total cost	Total vegetable cultivated area	Per bigha Input cost
237500	193350	38950	170600	640400	109	
2178.899083	1773.853211	357.3394495	1565.137615			5875.22936

From the table it is revealed that highest input cost is for land preparation followed seed fertilizers. While lest for the chemical and pesticide to the vegetable cultivation per bigha in sanchoe block.

The table 10 – Year Long Vegetable (Per Day Selling In Kgs)

Year Long Season Vegetable(Per Day Selling in KGs)								
Potato	Onion	Tomato	Brinjal	Garlic	Green chili	palak	Green Coriander	Total
11300	12200	7900	5800	400	2400	240	110	40350
28%	30%	20%	14%	1%	6%	1%	0%	

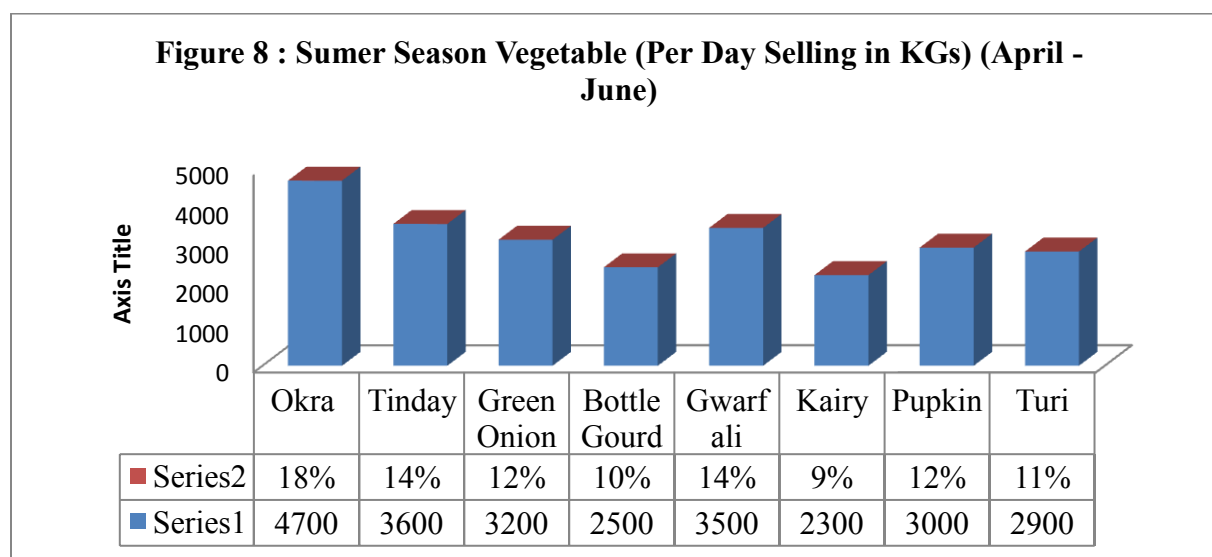
From the table 8 it is easily depicted there are several vegetable which have contribution according to regular demand like 30% selling contribution of the onion, 30% Onion, 20%

Tomato, 14% brinjal, 6% green chili and Garlic and palak is sold equally out of total selling vegetable in local mandi sanchore. While green coriander has little contribution comparison to other vegetable per day selling contribution.

Table 11 – Winter season vegetable (per day selling in kgs)

Winter Season Vegetable (Per Day Selling In KGs)(Oct.- March)								
Cabbage	Cauliflower	Peas	Carrot	Radish	French Beans	Capsicum	Ginger	Total
4700	3600	3200	2500	3500	2300	3000	2900	25700
18%	14%	12%	10%	14%	9%	12%	11%	

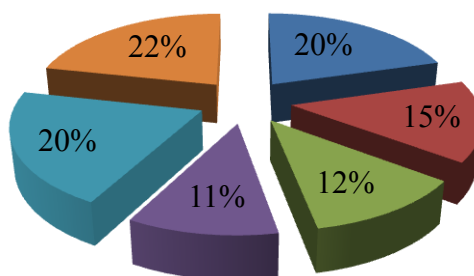
From the table 9 it is shows that winter season vegetable per day selling quantity of cabbage 18%, cauliflower 14%, peas, carrot 10%, Radish 14%, French Beans 9%, capsicum 12%, Ginger 11% have contribution of total vegetable selling quantity.



From the table 10 it is easily depicted that Okra contributed major contribution as 18% in selling per day out of total sell while least for Kairy and Bottle gourd as 9% and 10% respectively.

Figure 9 : Rainy Season Vegetable (Selling Per Day in KGs)(July - Sept.)

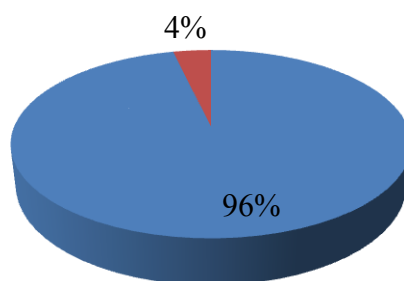
■ Bottle Gourd ■ Okra ■ Gwarfali ■ Tinday ■ Turi ■ Pupkin



From the figure 8 it is indicate that highest 20% and 22% contribution of Pumpkin and bottle gourd in out of total sell per day local mandi sanchore. While least 11% and 12% contribution of Tinday and Gwarfali respectively.

Figure 10 : Puchasing Place of Seed

■ Market Level ■ Village Level



From the figure it is depicted that 96% farmers were liable to purchase the seeds from the local market while 4% farmers from the village.

Table 12 – Distance of Selling Point

Distance of Selling Point			
Below 5 KMS	Between 5 to 15 KMS	Between 15 to 25 KMS	Others
31	35	9	7

From the table 12 it is indicate the distance of vegetable market from the vegetable producer place. Most of farmer stayed nearby 5 - 15 KMS to the market.

Table 13 – Major Commercial Vegetable Crops in Sanchore Block

Major Commercial Vegetable Crops		
High Majority crops	High potential crops in per Bigha	High revenue generate crops
1.Onion(68), 2. Brinjal(67)	1. Shakerkand (4351 KGs), 2. Onion (3790 KGs)	1. Shakerkand (48778Rs), 2. Cabbage (42092Rs), 3. Okra(32891)

Table 12 groups the major vegetables grown into three categories- Maximum area sown, high yield per bigha, and high revenue generating crops. The several crops provide high production in per bigha and also provide the high revenue from the farmers such as, cabbage and shakerkand.

Observations during the Study of Vegetable Cultivation:-

- The study shows that most families are dependent on agriculture for their livelihood as there are no other options of other livelihood sources. And average land holding of that area 12.95 bigha from each farmer. But the farmers owning less than 6 bighas are 20 out of the total surveyed. Only a very small proportion (5 farmers) own land more than 30

bighas. And only one farmer has seventy bighas. The occupational profile shows that any problems in agriculture directly affect the livelihood and food security of communities. Hence improving agricultural sector remains one of the critical means to strengthen the livelihood base of families.

- Quantum of production was found to be directly proportional to farm size. Although with more inputs and better agricultural technologies small landholdings could be made to produce more.
- With the coming of the Narmada canal there is now an assured water supply. And it creates suitable pre conditions to plan investments in improving the production and enhancing the incomes from agriculture. The adoption of horticulture by many farmers in the region is an encouraging sign and also demonstrates the viability of horticulture to be taken up in a more systematic manner.
- In the absence of other sources of livelihood and agriculture not providing enough returns the area had high migration incidence. Most of this migration is to destinations like cities in Gujarat, Maharashtra and Karnataka.
- It was observed the caste dynamics at local level have been unfavorable to the SC/ST communities because the upper caste like vishnoi, kalbi choudhary, and Rajput were in majority as compared to their population of the village. I get found that caste wise discrimination between the communities.
- I have found that mostly farmers growing vegetable for their home consumption. But they do not grow the vegetable for commercial purpose.
- I would like to say that providing funding will not help but what the villagers actually need is information and knowledge about the produce and their standards and require in other bazaar for future progress of the community. The summer internship helped us to have an unforgettable experience of exploring various aspects of village living.



MPoWer project director Mr. Jai Singh Mertia conducts a meeting in the dadusan village with their team members and provides the information about the horticulture program and its policy.

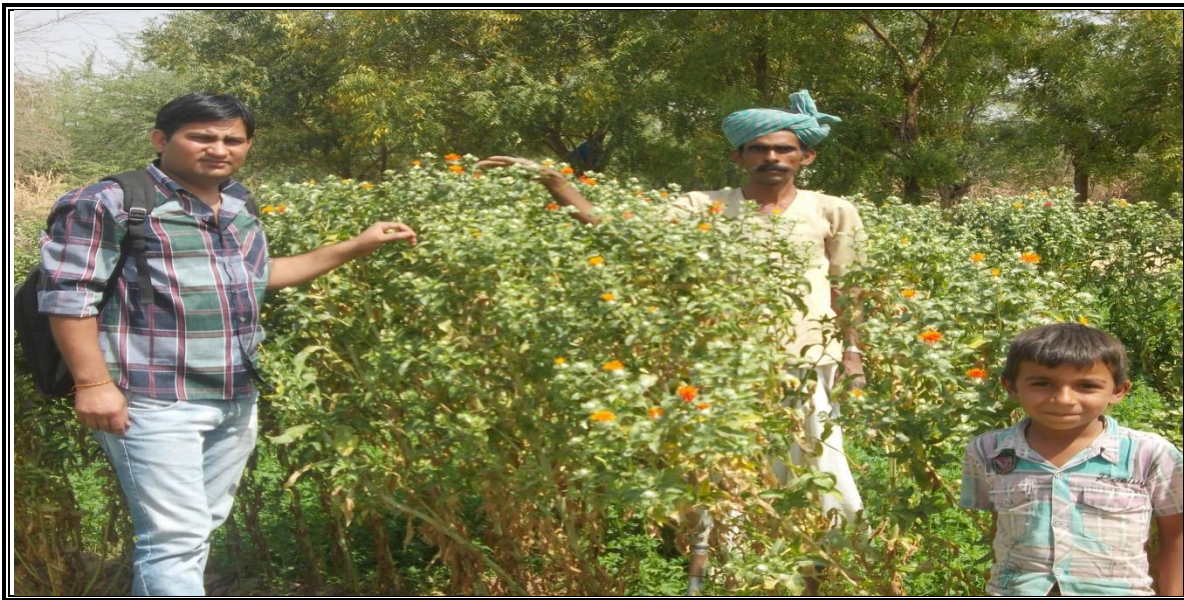


Goat cluster meeting held by the Mr. Kireet patel at Surava village. It was organized by MPoWeR FNGO Urmidar Foundation. In this meeting information was provided to take care of their animal by giving them proper fodder, medicine, vaccination and improve breed goat. So they would be able to earn a decent income.



Field visit to the farmers land

Farmer working their vegetable land



Mr. Laxman purohit a successful farmer who is growing” kesar” in the desert area. And also cultivating large level of vegetable and earn maximum profit.



Narmada canal in sanchoe block which is provide drinking water facility and irrigation facility for the people



Goat cluster training program in kamalpura village at sanchore block. The program conducts by the Urmidar Foundation under the MPoWeR project. In this program. In this program organization provide the IEC material for the women.

नर्मदा के पानी से अब पूरे साल होगी खेती- किसानी, साल दर साल बढ़ रहा खेती का रकबा

■ मुख्य केनाल में
2500 क्यूसेक पानी
की है क्षमता

■ किसान तीनों
सीजन में ले
रहे फसल

■ उनाळू सीजन
में बाजरा, ज्वार,
रजका व बाजरी

■ सीयाळू में गेहूँ,
जीरा, रायड़ा, मैथी,
अजवायन, सौंफ

■ खरीफ में बाजरा, मोट,
मूंग, मतीरा, तिलहन,
ग्वार तथा ज्वार

■ बादाम, अनार, चीकू, पपीता
व खजूर के साथ सब्जियों की
भी अच्छी पैदावार

भास्कर न्यूज़ सांचौर

पांच साल पहले आए नर्मदा के पानी जहां बुवाई क्षेत्र बढ़ा है, वहीं किसान भी अब बारह माह खेती करने लगे हैं। नर्मदा नहर आने से पहले किसान ब्रांस के भरोसे खरीफ की फसल पर निर्भर रहते थे, वहीं किसान अब साल में तीन बार पैदावार लेने के अलावा फल व सब्जी से निहाल हो रहे हैं। कभी पानी की समस्या से जूझने वाला उमखंड क्षेत्र सांचौर के किसान अब वैज्ञानिक तरीकों से खेती कर विकसित व समृद्ध किसानों की श्रेणी में आ गए हैं। क्षेत्र में खेती के साथ फल तथा सब्जियों की बढ़ती उम्र को देखते हुए अब क्षेत्र में कोल्ड स्टोरेज की आवश्यकता महसूस की जा रही है। किसानों को अपनी पैदावार की अच्छी कीमत मिल सके इसके लिए किसानों को डायरेक्ट मार्केटिंग के लिए नेट सेबी बनाने के लिए आईटी नॉलेज देने की जरूरत भी महसूस की जा रही है।

तीनों सीजन में ले रहे उपज : नर्मदा नहर आने के बाद क्षेत्र के किसान तीनों सीजन में फसल लेने लगे हैं। जिसके तहत उनाळू सीजन में बाजरा, ज्वार, रजका तथा बाजरी की फसल ले रहे हैं। वहीं सियाळू सीजन में गेहूँ, जीरा, रायड़ा, मैथी, अजवायन, सौंफ की फसल ले रहे हैं। वहीं सब्जियों में आलू, प्याज, गोभी, मटर, टमाटर, पालक, भिंड़ी की पैदावार से अच्छी कमाई कर रहे हैं। खरीफ सीजन में बाजरा, मोट, मूंग, मतीरा, तिलहन, ग्वार तथा ज्वार की फसल ले रहे हैं।

शेख पेज 13

नर्मदा नहर आने के बाद क्षेत्र के किसान तीनों सीजन में ले रहे फसल

फलों की उपज से मिल रही नई पहचान

सांचौर ब्लॉक में उद्यानिकी विभाग की ओर से किसानों को स्वयं स्वयं पर भित्तों वाली सलाह रंग दिखाते लगे हैं। जिससे क्षेत्र के किसान प्रयोगशाला होने के साथ खुद पहल करते हुए स्वयं के उपयोग के साथ खेती में नए प्रयोग कर अच्छी कमाई कर रहे हैं। सांचौर क्षेत्र में किसान अपने खेतों में बांगम, अनार, चीकू, पपीता, खजूर तथा तरबूज की उपज लेकर 24x12 के फार्मों को साकार कर रहे हैं। वहीं किसानों ने अपने खेत के सहारे खगोल के पौधे लगा पर्ट इनकम कर रहे हैं।

कृषि हैक्टयर बुवाई बढ़ी

क्षेत्र में नर्मदा नहर आने के बाद जहाँ कृषि बुवाई बढ़ी है, वहीं उत्पादन लक्ष्य भी करीब दो गुना हो गया है। नर्मदा नहर आने के बाद कृषि विभाग के अंकड़ों पर लजर डालें तो बेगुनी से ज्यादा कृषि हैक्टयर में बुवाई हुई है जो अपने वाले सालों में और बढ़ेगी।



» सांचौर क्षेत्र के बारा गांव में किसान द्वारा की गई अनार की खेती।

बूंद-बूंद सिंचाई से ले रहे फलों की उपज

नर्मदा का पानी आने के बाद किसानों को बागवानी खेती में बूंद-बूंद तकनीक बनी खेती रास आ रही है। इसके तहत किसान अनार, बांगम, चीकू, पपीता, तरबूज तथा खजूर की पैदावार को बढ़ावा दे रहे हैं। वहीं दूसरी ओर फव्वारा पद्धति से किसान जीरा, रायड़ा व गेहूँ के अलावा सब्जी, खरीफ व उनाळू फसल में भी इसी पद्धति से सिंचाई कर रहे हैं।

इन क्षेत्रों में हो रही अच्छी पैदावार

क्षेत्र के सीतू, भडवल, कोड, लालपुर, जैराव, सत्याना, फाल्डी, अमनी, हाड़ेवा, रामपुरा, गोभी, धिरालवा, होथी गांव, सौंफ, डेडवा, मिरीबेरी, पसवा, सिवाड़ा, तेतरोल, रणोदर, केरिया, हलीवा, सिवा, सेलावा, सुंदगोड़, दूठवा, धिमडावर, इंदरोल, काठेवा, बिछावडी, वांका, वारिया, गोलसल, प्रतापुर, डबल, बावरा, व खलत सहित कई गांवों में नर्मदा का नीर किसानों के खेतों में पहुंच चुका है, जहाँ किसान खेतों में सोना उफा रहे हैं।

छह वर्षों में दुगुना हुआ बुवाई का रकबा

कृषि विभाग के अनुसार नर्मदा नहर परियोजना से सांचौर व बाड़मेर के गुड़ामालानी क्षेत्र में नर्मदा नहर से कुल 2 लाख 45 हजार हैक्टयर भूमि सिंचित करने का लक्ष्य मार्च 2015 तक का है। जिसमें सांचौर व गुड़ामालानी क्षेत्र में 1 लाख 30 हजार हैक्टयर भूमि पर सिंचाई हो रही है। वर्तमान में सांचौर क्षेत्र में 1 लाख 10 हजार हैक्टयर भूमि सिंचित हो रही है। 2008-09 में कुल 60383 हैक्टयर भूमि सिंचित हुई थी। जो 2010-11 में 99419 हैक्टयर पहुंच चुकी है। क्षेत्र में 2008 में नर्मदा नहर आने के बाद लगातार 6 वर्षों में बुवाई का रकबा दुगुना हो गया है।

कितनी है नहर की क्षमता

नर्मदा नहर परियोजना राज्य में सीतू से प्रवेश करती है मुख्य केनाल में 2500 क्यूसेक पानी की क्षमता है। जिसमें इस बड़े गुजरत से 1300 क्यूसेक पानी सब्जी फसलों के सिंचाई के लिए लिख गया। विभाग द्वारा किसानों को सिंचाई के लिए केवल सब्जी की फसल की सिंचाई के लिए ही पानी दिया जा रहा है। सब्जी की फसल के बाद कई विवरिकाओं व महुवनों में पानी बंद कर दिया जाता है या फिर पौधे के लिए ही पानी दिया जा रहा है। किसानों द्वारा विवरिकाओं के पास बने कुओं में पानी रिचार्ज करने व नहरों में पानी चलने से अपावर के कुएं रिचार्ज हो जाते हैं साथ ही कुओं का जलस्तर भी बढ़ा है जिससे उनाळू सीजन के दौरान मार्च व अप्रैल में किसानों द्वारा कुओं के पानी से बाजरे व ग्वार की फसलों की सिंचाई की जाती है।

नर्मदा नहर से सांचौर व गुड़ामालानी क्षेत्र में 2 लाख 45 हजार हैक्टयर भूमि को सिंचित करने का लक्ष्य रखा गया है। वर्तमान में 1 लाख 30 हजार हैक्टयर भूमि सिंचित हो रही है। वहीं क्षेत्र में नर्मदा नहर आने के बाद किसान परंपरागत खेती छोड़कर अब बागवानी खेती से फल व सब्जियों की भी अच्छी पैदावार ले रहे हैं।

- सुमरसिंह, सहायक निदेशक, कृषि विभाग
श्रीमाल

SWOT Analysis of Potential Vegetable Cultivation

Strength	Weakness
• High demand of fresh vegetable • Already large number of farmers engaged in Vegetable cultivation • Low input cost • High profit rather than crops cultivation • Vegetable takes short time in harvesting • Potential to create jobs and employment, especially for marginal framers • Easy to sell in local market.	• Lack of knowledge and skill about the vegetable cultivation. • Low market information at farmer's level. • Low irrigated land so most of cultivable land still remains unused vegetable cultivation. • Poor quality of seed and fertilizer. • No storage facility for vegetable procurement. • Lack of transportation hinders vegetable supply in market. • Poor economical condition of farmers.

• Opportunities • Huge demand of vegetable domestic and local market. • Big market available in Barmer district. • To provide daily basis income for the farmers • High demand in food processing unit (ketchup, chips, pickles, Jam etc.) • Irrigation facility available through Narmada canal. • Traders available for purchasing at local Mandy	Threats • High price variation in the market • Absence of adequate trade policies. • Middle man. • High completion in the market. • Over supply. • Climatic condition • Decreasing interest of cultivation due to crops failure.
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CHAPTER 6

Major constraints in vegetable cultivation

Lack of knowledge and skills about the vegetable cultivation:-

There is lack of technical knowledge regarding the vegetable cultivation that is which crop is to be grown their land. They do not have proper knowledge about pest and disease and its management. So that many times pest destroy the crops and farmer take more loss. Technical knowledge should be given to the farmers those who are willing to engaged in vegetable cultivation. Training should be conducted to provide information regarding with vegetable cultivation and pest management related programmes.

Price related constraint:-

Farmers are unsatisfied by the price that they get for their produce in market Farmers has not enjoyed the price benefit of vegetables in the market. As they get the same price which is given by the vendor and middleman. Growers are getting for their vegetables. but if they sell their produce at the farm level only then they get much more price at farm level than at market level.

Seed availability

Most of the farmers say that seed they get from the local market sanchore and their village. But better hybrid quality seed not available in this market so that they get low production through such type of seed

Labour

The farmers say that the labour is not easily available to them because migration is major issue in this area most of people left their homes to earn money. So that farmers avoid the vegetable cultivation non availability of labour.

Transportation: - Lack of transportation facility farmers avoid the vegetable cultivation because when they have less quantity of vegetable then transportation cost of vegetable high but margin of produce will be minimum.

More Fluoride Content in the Water:- In sanchoe ground water have more fluoride content so that those farmers have not canal facility for irrigation they avoid the vegetable cultivation because in vegetable wants to more irrigation so that when farmers used this water in vegetable cultivation then soil of land will be unproductive. Such type of situation in local language called to “Saar”

CHAPTER 7

Conclusion

This study offer an outlook on the vegetable cultivation occupied under the sanchoe block. In the study area 95% and 5% land were found as cultivable and un-cultivated respectively out of total agriculture land. Irrigated land was found to be 92% of the total cultivated land. Most part of irrigated land was covered by the Narmada canal in the study area. Aforesaid information proves that most of farmers were kept sufficient land for the vegetable cultivation due to availability of various resources and irrigation facility in the occupied area. Also in present farmers growing onion, brinjal, cabbage, cauliflower, radish, carrot, okra, pumpkin, turi, shakerkand, etc. in that area

Majority of farmers were growing onion and brinjal owing to more consumption by the community. Highest income generation was found from the shakerkand, cabbage and onion to the farmers.

Finally it had been concluded that vegetables are the short duration crops which required minimum land holding for growing and gives high production and revenue to the farmers so that it would be better livelihood source to the community in that area. Raising vegetables for supplementing as well as income is an important activity for farmers.

Suggestion

- To provide better quality vegetable seed which is give high production?
- The farmers should be start collective marketing approach and reduce the transportation cost.

- Training should be conducted to provide information regarding with vegetable cultivation and pest management related programmes.
- Vegetable cluster center established for collective marketing and procurement of their product.
- As the most of farmers poor educational background therefore, there is need of frequent orientation of farmers regarding for post harvest management activities, off season vegetable production, pest management training program and exposure visit should be arranged.
- Additional manpower should be hired when as required.
- Suitable system should be developing to link vegetable grower farmers with institutional buyers and exporters.
- To reduce the role of middleman through farmers tie up with the (Contract farming) big marketing company as like reliance fresh and bharti wall mart.
- Irrigation facility should be improved.
- Off- season vegetables under protected conditions is alternative to increase the farmers income.

Chapter 8

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Chapter 9

Annexure:-

Questionnaire for Vegetable Grower Farmer

1.	Member Profile		
1.1	Name of Interviewer		
1.2	Name of Respondent		
1.3	Gender	(1) Male	(2) Female
1.4	Category	(1) SC/ST	(2) OBC (3) General
1.5	Economic Benchmark	(1) APL	(2) BPL
1.6	Village	Gram Panchayat	
1.7	Block	District	

2.	House Hold Status		
2.1	Family Members (nos.)	(1) Males	(_____)
		(2) Females	(_____)
		(3) Children	(_____)
2.2	Available Resources		Area (bighas)
	(1) Land	(1) Yes (2) No	(_____)
	(2) Cultivable		(_____)
	(3) Irrigated		(_____)
2.3	Source of Irrigation	(1) Yes (2) No	
	i. _____ ii. _____ iii. _____		
	iv. others _____		

2.4	Agricultural Tools or Equipments	(1) Yes	(2) No
	i. _____	ii. _____	iii. _____
	iv. others _____		
2.5	Livestock Availability	(1) Yes	(2) No
	(1) Cow - _____	(2) Buffalo - _____	(3) Goat - _____
	(4) Sheep - _____	(5) Camel - _____	(6) Bull - _____ (7) _____

3	Livelihood Activity Summary			
	Activity Engagement (Annually)	Cropping Time (month)	Harvesting Time (month)	Cash Income
	Kharif (i) _____			
	ii. _____			
	iii. _____			
	iv. _____			
	Rabi (i). _____			
	ii. _____			
	iii. _____			
	iv. _____			
	Zaid (i). _____			
	ii. _____			
	iii. _____			
	iv. _____			

4. Do you grow any vegetable? (1) Yes (2) No

6. Do you grow any vegetable for commercial purpose? (1) Yes (2) No

5	Vegetable Details	Time of Sowing (month)	Time of Harvesting (month)	Area under vegetable cultivation (bighas)	Seed Quantity (gms)	Production (Kgs)	Selling price (Kg/Rs)
i.							
ii.							
iii.							
iv.							
v.							
vi.							
vii.							
viii.							
ix.							
x.							

7.	Vegetable Production and Marketing	
7.1	Which vegetable gives high production per bigha?	
	Vegetable Name	Volume (KGs)
	(1) _____	_____
	(2) _____	_____
	(3) _____	_____
7.2	How much you spend over the process of vegetable cultivation?	
	Activity	Amount
	(1) Land Preparation	_____
	(2) Seed & Fertilizer	_____

	(3) Chemicals or Pesticides	_____
	(4) Transportation	_____
7.3	From where you purchase the seed?	
	(1) Village / Home	(2) Market Level
7.4	What type of seed you use for the vegetable cultivation?	
	(1) self (traditional)	(2) hybrid
7.5	Where do you generally sell your vegetables?	
	(1) Local Mandi	(2) Retailer Shop (3) Vender (4) Neighborhood
7.6	Why do you sell vegetable at Local Mandi?	
	(1) Good Price	(2) near to home (3) personal contact (4) others
7.7	Why do you sell vegetable at Retailer shop / vendor?	
	(1) Good Price	(2) near to home (3) personal contact (4) others
7.8	Why do you sell vegetable at Neighborhood?	
	(1) Good Price	(2) near to home (3) personal contact (4) others
7.9	How do you approach to market?	
	(1) individual level	(2) Collective level
7.10	Distance from selling point?	
	(1) below 5 KMs	(2) between 5 to 15 KMs (3) between 15 to 25 KMs
	(4) KMs _____	
7.11	How do you get your vegetable price?	
	(1) Cash	(2) Barter System (3) Payment in installment (4) others
7.12	If sells vegetable at mandi	
	Are you giving any kind of commission / brokerage?	
	(1) Yes	(2) No
7.13	Interval of commission?	
	(1) Daily	(2) Monthly (3) Half Yearly (4) Annual
7.14	Are you satisfied with this channel of marketing?	
	(1) Yes	(2) No

8. Why you grow vegetable?

9. What do you think are the major benefits of cultivating vegetables (if not came under Q 8)?

10. What are the major hurdles / constraints for vegetable cultivation?

(1) Weather / Climatic Conditions	(2) Inputs Availability	(3) Soil Conditions	(4) Water Availability	(5) Pest / Diseases	(6) Capital
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Questionnaire for Vegetable Vendors or Sellers

1	Vender Profile	
1.1	Name of Vendor	
1.2	Gender	(1) Male (2) Female
1.3	Age	
1.4	Selling Vicinity	(1) Village Level (2) Gram Panchayat Level
		(3) Block Level (4) District Level

2.	Vendor Business Details		
2.1	Point of Selling Vegetable	(1) Block (2) Gram Panchayat (3) Village	
2.2	Mode of Selling Point	(1) Static based (2) Mobile Based	
2.3	Did you grow vegetable our own?		
	(1) Yes (2) No		
2.3.1.	If yes, then		
a	Place (village name, gram panchyat)	Area cultivated under vegetables	Distance (KMs) (growing point to selling point)
	i. _____ _____	_____ _____	_____ _____
	ii. _____ _____	_____ _____	_____ _____
2.3.1.	Did you grow regularly vegetables?		
b	(1) Regular (2) Seasonal		
2.3.1.	If seasonal then majorly in which session?		
c	(1) Winter (2) Summer (3) Rainy		
2.3.2.	If no, then - Place of procurement		

a	(1) Own village (3) Block level mandi			(2) Own gram panchyat (4) Block level informal structure		
2.4	Frequency of procurement?					
	(1) Daily		(2) Bi weekly		(3) Weekly	
2.5	Quantity of procurement (which ever could be obtained)?					
2.5.1		Volume (KGs)	Amount (Rs)			
	i. Weekly Basis					
	ii. Monthly Basis					
2.6	Mode of procurement?					
	(1) Cash		(2) Credit		(3) Barter	
2.7	Peak session for trade?					
	(1) Winter		(2) Summer		(3) Rainy	

3. Which vegetables remains available yearlong (consumption pattern)?

4. Which vegetable remains more prominent during and possible reason (seller point of view)?

a. In winters

b. In summers

c. In rains

5. Which vegetables consumer purchases most and why?

a. In winters

b. In summers

c. In rains

6. How many persons purchase the vegetables on daily basis?

7. How of them were purchases (approx.)

(1) Small quantity

(2) Medium quantity

(3) large quantity

8. Why you purchases vegetables from formal or informal structure?
