

CROPPING PATTERN AND FARMING ACTIVITIES- A CASE STUDY OF KANAIR VILLAGE OF KANDAGHAT BLOCK, DISTRICT SOLAN, HIMACHAL PRADESH

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ABSTRACT

Agriculture, horticulture and allied activities are the backbone of Indian economy. Farmers in Indian continent are continuously growing the variety of crops in their field. India is the second largest grower of staple food i.e. rice and wheat. Agriculture provides most of the food produces and fabrics. The growth of the agriculture sector is rapidly developing with the help of science and technology. About 11,500 years ago, people gradually learned how to grow cereal and root crops, and settled down to a life based on farming. By 2,000 years ago, much of the Earth's population had become dependent on agriculture. Before agriculture became widespread, people spent most of their lives searching for food—hunting wild animals and gathering wild plants. Scholars are not sure why this shift to farming took place, but it may have occurred because of climate change. When people began growing crops, they also began herding and breeding wild animals. Adapting wild plants and animals for people to use is called domestication.²

KEYWORDS: *Agriculture, Irrigation, rural population, cash crops, traditional crops, local market and water sources.*

INTRODUCTION

In Sanskrit Language agriculture word defined as a *Krisi*. This word is taken from *Rigveda* where *Krisi* refers to cultivation. According to the *Markandeya Purana*, Brahma was regarded as the first inventor of Agriculture. According to this *Purana*, at the beginning of the creation of the earth, the soil yielded almost all types of corn, vegetables, fruits etc. However, as time passed, the soil became unproductive. Thereafter, Brahma churned the soil and got various kinds of seeds. These seeds on their own accord started giving corns, fruits etc. Later on, Brahma realized that these seeds were also not growing properly. Then He brought agriculture into practice. Seeing the ability of different classes of the people in the society he initiated one class of the people to do this profession of agriculture. Since then the agriculture depended on human hard work for a long time³.

Agriculture is an important part of India's economy and at present, it is among the top two farm producers in the world. This sector provides approximately 52 percent of the total number of jobs available in India and contributes around 18.1 percent to the GDP. Agriculture is the only means of living for almost two-thirds of the employed class in India. As stated by the economic data for the financial year 2006-07, agriculture has acquired 18 percent of India's

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²<https://www.nationalgeographic.org/encyclopedia/agriculture/#:~:text=Agriculture%20is%20the%20art%20and,the%20world's%20food%20and%20fabrics.>

³ Hans, Dr V. Basil. (2019), Sustainable Agriculture and Economic Growth. *JETIR*. January 2019, Vol. 6, Issue 1.

GDP. The agriculture sector of India has occupied almost a 43percent of India's geographical area. Indian agriculture has registered impressive growth over the last few decades. The food grain production has increased from 51 million tones (MT) in 1950-51 to 250MT during 2011-12 highest ever since independence⁴.

AGRICULTURE IN HIMACHAL PRADESH

Himachal Pradesh describes the ancients as “*Devbhoomi*”, which is situated in the heart of the Himalayas in the northern part of India. It has a geographical area of 55.67 lakh hectares. Most of which are covered by the forests and grazing land. Less than 10% (5.6 lakh hectares) of the total area is under cultivation. This state has a large range of mountains and valleys rising from 350 meters to 7000 meters above sea level⁵.

Agriculture in Himachal Pradesh is a way of life for the agrarian population. It is the backbone of the state economy and the mainstay of the livelihood of people in the state. Agriculture and allied sector contribute nearly 20% of the total state domestic product. This sector of the economy has experienced an upward swing in its growth in the recent past with the active support of the state government, with improved scientific technologies adopted by farmers, as it is a major source of income for the people. As per the statistics available, the sector alone has provided direct employment to around 70 % working population of the state. About 90% rural population has agriculture as its main occupation thus assuming special significance in the growth and development of the economy of the state⁶.

HISTORY OF RUGRA KANAIR IRRIGATION SCHEME

In 2002 people of Kanair Panchayat thought that there is the possibility of water from *Kunni Khad* to their agricultural land. They organize a meeting between 10 villages (Kanair, Sharair, Rugra, Mundi Kalan, Mundi Khurd, Kamlyadu, Lalyana, Majyat, Sair, and Nagalathi) people and proposed this scheme. After the meeting, a committee had been made for this scheme fulfillment, who works as a leader of the entire farmers. They gave this proposal to their MLA Dr. Rajiv Bindal, who proposed this scheme in front of that time CM Prem Kumar Dhumal. But State Government is not able to provide that much of a large amount from State Budget. Through the lots of efforts of MLA on the state level with the cooperation of CM this scheme was taken into the NABARD. Chanog - Sujana irrigation Scheme from the same khad has been started in 2003. This scheme work done fast because of those area Executive Engineer's efforts. While actual work starts on Rugra Kanair irrigation scheme the Chanog - Sujana irrigation Scheme committee makes the court case in the District Session Court. This case runs for 4 years. This case made the stay on this scheme. By the time the ruling Government changed in the state. While that time CM Raja Virbhadra Singh notice this conflict. He makes an order to both executive engineers of Shimla and Solan District to come on the sight and measure the water level of *khad*. In May, both executive engineers measure the water level of Khad and find that the water level is enough for both schemes. But Chanog - Sujana irrigation Scheme committee denies accepting this report. Due to favor of Executive Engineer report and Court judgment in the favor of Rugra - Kanair irrigation Scheme stay on this scheme was removed. After work started and this scheme come into the existence for running from 2007. Time and days are divided for water allotment for all villages. IPH pump operators work according to committee decisions.

METHODOLOGY

The present study was carried out in Kanair Panchayat. The total numbers of household in the Panchayat were 315 in 2019-20. For the purpose of the study all the 315 households were considered as the universe of the study and out of them 32 (10%) households were selected with the help of the random sampling i.e. lottery method. The researcher interviewed himself all those beneficiaries who got benefitted from the scheme meant for the water irrigation in

⁴ https://www.ripublication.com/ijafst_spl/ijafstv4n4spl_11.pdf

⁵ <https://himachalpradesh.pscnotes.com/himachal-pradesh-geography/agriculture-in-himachal-pradesh/#:~:text=The%20chief%20food%20crops%20cultivated,large%2Dscale%20production%20of%20fruits.>

⁶ <https://abhipedia.abhimanu.com/Article/State/NDQxMgEEQQVVEEQVVV/-Agriculture-and-its-diversification-in-Himachal-Pradesh-Himachal-Pradesh-State.>

Kanair Panchayat. The researcher himself collected data and filled the interview schedules i.e. 32 households for the study. Interview method, observation method were used for the collection of the data from the study area.

RESULTS AND DISCUSSIONS

During the survey, it was found that some of the respondents were engaged themselves as full time and part time. The data shows the distribution of the respondents according to main occupation in Agriculture. The data indicates that in Kanair Panchayat 22 no. (69%) of the respondent are full time involving in the agricultural activities and remaining 10 (31%) were doing agriculture as a part time work.

The data was also collected pertaining to the cultivation in a year. The result shows that 28(88%) of total respondents of the Panchayat cultivate their land thrice in a year and only 04 (13%) respondents were cultivating their land twice in a year.

The farmers / respondents of the study area were also interviewed w.r.t vegetables grown by them after the scheme started in Kanair Panchayat. The data shows 30 (94%) respondents were growing tomato and were earning their livelihood. Remaining 24 (75%) respondents growing onion, while 23 (72%) respondents were growing the crop of Garlic, 22 (69%) respondents were growing the traditional crop of wheat and maize.

The data was also gathered about the source of water in their fields. The data shows the various sources of water (Rain, Canal, Tank and Irrigation Scheme) for irrigation in Kanair village. Data also states that most of the respondents 14(44%) were depending on the tank, rain and irrigation scheme i.e.

Government schemes are popular in the agriculture and horticulture India and the state of Himachal Pradesh. The respondents were also interviewed about the Govt. subsidies on the agriculture. The results show that the respondents of Kanair Panchayat were getting various govt. subsidies on agriculture equipment. Data also shows that 15(47%) of respondents were not getting any Government subsidy, remaining 17(53%) respondent got the item of agriculture through Govt. subsidy.

The data also revealed that all the respondents were purchasing the seeds and fertilizers from private shops and no one purchase the seeds and fertilizers from Govt. shops. The results also indicate that 14(44%) respondents think that these fertilizers are not much powerful as compare with private shop fertilizers and 11(34%) respondents got the information very late regarding availability of fertilizer and seeds on the Govt. stores.

The both of the harvesting methods i.e. machines or by hand by the farmers were found prevalent in the area. The data indicates that most of the respondents i.e. 30 (94%) were using only man power for harvesting; remaining 2(6%) respondents were using the machine power to harvest their crops.

Data shows that the farmers of Kanair Panchayat were selling their agriculture produces. Results indicate that most of the respondents i.e. 29(91%) sell their agriculture produce to the agents. Only 2 (6%) respondents were selling their agriculture produce to the local shopkeepers. For this, the transportation method was used by the farmers. The maximum respondents i.e. 25(78%) of Kanair Panchayat use the truck as a transportation method. Own vehicles used by only 5 (16%) respondents to reach market with their agriculture produce. Remaining 2(6%) respondents were using local bus as a transportation method to sail their produces.

The respondents were also asked to tell about their beneficial crops in area. Data indicates that Tomato, Coriander, Green Chilly, Potato, Brinjal, Turnip and Taro Root are those crops which 100% beneficial to those farmers who produce them. Traditional crops i.e. Wheat and Maize were found least beneficial to 1 (5%) respondent out of total respondents who grow these due to its personal use.

The data indicates that most of the respondent i.e.10 (48%) got the subsidy to build tank. Land development subsidy attained by the 7(33%) respondents of the study area. Only 4 (19%) respondents got the subsidy for both the land development and the tank building to make agriculture process properly. The result also shows the type of tools used in agriculture activities in research area. Data indicates 24 (75%) respondents were using the both traditional and modern tools. Only 3(9%) respondents were using the traditional tools in their agricultural fields.

CONCLUDING REMARKS

The study area i.e. Kanair Panchayat is located in Kandaghat Block of Solan district of Himachal Pradesh. Out of 315 households 32 (10%) of the respondent were interview for the purpose of the study. Respondents of the area were mainly growing the cash crops i. e Tomato, Pea, Spinach, Wheat, Maze, Garlic, Cauliflower, Ginger, Capsicum, Taro Roots, Radish, Turnip, Brinjal, Barley, Green Chilly, Coriander, Onion, Garlic, Cucumber Cabbage and Lady finger. Out of these crops respondents think that Tomato, Pea, Capsicum, Spinach, Garlic, Cauliflower, Ginger, Arabic, Radish, Turnip, Brinjal and Green Chilly were considered beneficial crops by the respondents. Wheat, Maze and Barley were not found as beneficial for farmers.

Study show in Kanair village all farmers were growing tomato, in Mundi Kalan and Mundi Khurd villages, capsicum is the main crops and in Sharair Village farmers mainly grow the onion and Garlic.

Study shows that all households of Kanair Panchayat were involved in agriculture. Maximum people of the Kanair Panchayat had agriculture as their primary occupation and remaining having secondary occupation. The study shows maximum respondent belongs to 50-60 age group and most farmers having matriculation education. Study states that all respondents were using the both type of fertilizers i.e. organic and inorganic. Study also reveals that half respondents i.e. 16 having the agricultural land between 3-7 Bighas and most respondents generate the income between 1 lakh rupees to 2 lakh rupees from agriculture and most of the farmers spend 10000-20000 rupees on the agriculture. Most of the farmers use the both traditional and modern tools for farming and most respondents get the solution of agriculture problems from fellow farmers.

