

**AERC Report
Study No. 164**

**SOCIO-ECONOMIC RESURVEY OF VILLAGE
MALANA IN HIMACHAL PRADESH, INDIA**

**A Study Commissioned by
Ministry of Agriculture and Farmers Welfare Government of India,
New Delhi**



**ARVIND KALIA
D. V. SINGH
ANIL KUMAR
SUJAN SINGH**

**AGRO-ECONOMIC RESEARCH CENTRE
HIMACHAL PRADESH UNIVERSITY SHIMLA-INDIA
December 2018**

(Please visit us at: www.aercshimla.in)

AERC Report

Study No. 164

**SOCIO-ECONOMIC RESURVEY OF VILLAGE
MALANA IN HIMACHAL PRADESH, INDIA**

A Study Commissioned by

Ministry of Agriculture and Farmers Welfare Government of India,

New Delhi



AGRO-ECONOMIC RESEARCH CENTRE

HIMACHAL PRADESH UNIVERSITY SHIMLA-INDIA

December 2018

(Please visit us at: www.aercshimla.in)



HIMACHAL PRADESH UNIVERSITY

SUMMER HILL, SHIMLA- 171005

Professor Sikander Kumar
Vice-Chancellor

PREFACE

The socio-economic resurvey of a village like Malana is a unique undertaking aimed at bridging the information gap of panel data for studying closely the rural dynamics for better development policy for villages. That this resurvey happens to be the first study undertaken in the process of revival of continuous village studies is a matter of pleasure for AERC, Himachal Pradesh University, Shimla-5. Revival of continuous village studies after their discontinuation for some time shows the concern of Ministry of Agriculture & Farmers Welfare towards the present agrarian crisis in the country and will go a long way in using these villages as socio-economic research observatories. The invitation of Shri P.C. Bodh, Adviser, Agro-Economic Research, DAC&FW towards this is appreciable.

The study is also important from the perspective of covering a unique village in Himachal Pradesh which is undergoing fast socio-economic change in its rather primitive existence for long time and the study will reveal the rural dynamics that have affected the village life during a quarter of a century, since 1991-92, when last time it was studied by AERC, Himachal Pradesh University, Shimla-5.

What is going to be most interesting about this study is the fact that it is about a village with mysterious history of past existence in complete isolation from the larger territory of Kullu district and the rest of the State; and it was not before 80's that the village began to have visible interface with the State Development Agencies and other factors of development. It was, perhaps, in view of this fact that the first study was carried out in 1991-92, which is serving as the bench mark study and the current repeat survey will throw light on various socio-economic development and the issues related to social, economic and ecological sustainability.

Dr. D.V. Singh and Dr. Anil Kumar and Dr. Sujan Singh Research Investigators and ShriChaman Lal, Sr. Assistant deserve appreciation. This study is an indicator of the valuable services that the center has been rendering in its field of specialization. The findings of the study may be helpful to the policy makers and economic planners to frame suitable policies for implementation to meet the development need of the village.

(Sikander Kumar)

ACKNOWLEDGEMENTS

The present village study was undertaken at the instance of Directorate of Economics and Statistics, Ministry of Agriculture and Farmers Welfare, Government of India, New Delhi with the full financial support. We are thankful to Shri P. C. Bodh, Adviser AER Division of Directorate of Economics and Statistics, Ministry of Agriculture and farmers welfare, Government of India, New Delhi, for his guidance, constant support and valuable suggestions in completion of the study. Sh. P.C. Bodh's initiative in reviving the Continuous Village Study Approach on the line of Dr. S.M Jharwal Committee recommendation is appreciated.

Our special thanks are due to Prof. Sikander Kumar Hon'ble Vice-Chancellor, Himachal Pradesh University, Summer Hill, Shimla, for his constant encouragement and guidance in completion of this report.

We are grateful to DFO Parwati Forest Division, ShamshiKullu Sh. H. L. Rana for extending help in providing stay arrangement in Forest Department Inspection Hut at Malana during our field survey. Forest Guard, Mr. Gopal at Malana is also deserves thanks for his assistance in stay arrangement.

We are especially thankful to villagers of Malana who attended us in field survey and stakeholders meeting and helped in providing necessary data. During field work the help rendered by Mrs. Swari Devi Aganwari Worker of Malana is highly appreciable. We are extremely thankful to her. The other important person who contributed and co-operated a lot in smoother conduct of the study is ShriBhagi Ram, Pradhan of MalanaPanchayat.

We also thankful to Professor Anurag Sharma, Department of Geography, Himachal Pradesh University, Shimla,fordevoting his precious time in going through the entire 1st draft of the report and edited the entire text thoroughly.

We are extremely thankful to Mr. AshishOjha, IPS Superintendent NCB, Sub-Zonal Unit Mandi H.P. for extending his support in providing lot of information on cannabis (Bhang) in Himachal Pradesh.

We are grateful to Mr. Chaman Lal, Sr. Assistant for secretarial services and arrangements at all stages of the study.

We also express our sincere thanks toDr. (Mrs.) Nisha Devi and Miss VamikaDarhel for giving their help & support from time to time during the study and word processing of the report by Mrs. MeeraVerma is also duly acknowledged.

We would like to thanks Mr. Naresh Kumar Sharma, Driver (AERC), who accompanying with us in field work and photography of various scene related to the study.

Dated:

Authors

CONTENTS

Particulars	Title	Page No.
Chapter-I	Introduction	1-23
1.1	Background	1
1.2	Historical Profile	1
1.3	Present Scenario of Malana Village	2
1.4	Brief Review of Literature	3
1.5	Objectives and Methodology	14
1.6	Definitions and Concepts	19
1.7	Organization of the Report	22
Chapter-II	An Overview of Village Malana	25-39
2.1	Location	25
2.2	People	28
2.3	Dress and Ornaments	28
2.4	Language and Dialects	29
2.5	Food Habits	30
2.6	Religion and Society	32
	2.6.1 Religion and Caste System	32
	2.6.2 Family System	33
	2.6.3 Marriage	33
	2.6.4 Birth and Death Ceremonies	34
	2.6.5 Fairs and Festivals	34
	2.6.6 Social Sanctions	35
2.7	Climate	36
2.8	Flora and Fauna	36
2.9	Road and Communications	38
Chapter-III	Sustainabilities Issues	41-50
3.1	Mountain Specificities	41
	3.1.1 Inaccessibility	41
	3.1.2 Fragility	41
	3.1.3 Marginality	42
	3.1.4 Diversity or Heterogeneity	42
	3.1.5 Niche or Comparative Advantage	43
	3.1.6 Human Adaptation–Mechanisms	43
3.2	Mountain Specificities in Malana Village	44
	3.2.1 Socio-Economic and Ecological Sustainability of Malana village	45
	3.2.2 Potential Attributes as Indicators of Sustainability of the Mountain System in Malana Hills	48
3.3	Summing Up	50

Chapter-IV	Social Dynamics	51-59
4.1	Demography	51
4.2	Educational Status	52
4.3	Literacy Rate in Malana	56
4.4	Seasonal Migration	56
4.5	Housing	57
4.6	Summing Up	58
Chapter-V	Public and Social Institutions	61-73
5.1	Public Institutions and Facilities	61
	5.1.1 Drinking Water Supply Scheme	61
	5.1.2 Electrification	62
	5.1.3 Medical and Public Health	62
	5.1.4 The Malana Co-operative Society	63
	5.1.5 The Malana Herbs Marketing Co-operative Society	64
	5.1.6 Educational Institutions	65
	5.1.7 Branch Post Office	67
5.2	JamluDevta Trust	67
5.3	Legal and Administrative Institution/System	70
5.4	Development Programmes	71
5.5	Government Aid to MalanaPanchayat	72
5.6	Summing Up	73
Chapter-VI	The Economy of Malana	75-129
6.1	Land Holdings	75
6.2	Land Use Classification at Village Level	76
6.3	Land Utilization Pattern – Farm Level	78
6.4	Cropping Pattern	79
6.5	Changes in Cropping Pattern	81
6.6	Nature and Extent of Crop Diversification	83
6.7	Area and Production of Field Crops	84
6.8	Productivity of Field Crops	86
6.9	Returns from Field Crops	88
6.10	Cost of Cultivation and Net Returns from Field Crops	88
6.11	Status of Crop Production	90
6.12	Livestock Resources	91
6.13	Changes in Livestock Wealth	92
6.14	Cost of Livestock Rearing	94
6.15	Livestock Production	95
6.16	Gross Returns From Livestock	96
6.17	Net Returns from Livestock Rearing	97
6.18	Status of Animal Husbandry	98
6.19	Plants/Trees Wealth	99
6.20	Production from Support Land	100

6.21	Source of Support Land Products	103
6.22	Source-Wise Returns from Support Land	104
6.23	Cost and Net Returns from Support Land	105
6.24	The Issue of Illegality of Cannabis as a Common Pool Resource	106
6.25	Status of Support Land Production	108
6.26	Subsidiary Enterprises	108
6.27	Returns from Subsidiary Enterprises	109
6.28	Status of Farm Implements	109
6.29	Labour Force and Occupational Pattern	110
6.30	Man Power Utilization	111
6.31	Components of Employment	113
6.32	Extent of unemployment	114
6.33	Household Durables	115
6.34	Family Income	117
6.35	Pattern of Income, Expenditure and Savings	120
6.36	Changes in Income, Expenditure and Savings	122
6.37	Malanis Dependence for Food and Non-Food Items	123
6.38	Food Items from Public Distribution System (PDS)	124
6.39	Components of Consumption Expenditure	125
6.40	Per Capita Consumption	126
6.41	Summing Up	128
Chapter-VII	Summary, Conclusions and Suggestions	131-139
	Bibliography	141-144

LIST OF TABLES

Table No.	Title	Page No.
Chapter-II		
2.1	Local Language and Dialect	30
Chapter-III		
3.1	Negative Change as Indicators of Un-sustainability of Mountain System in Malana	46-47
3.2	Positive Attributes as Indicators of Sustainability of Mountain System in Malana	48-49
Chapter-IV		
4.1	Demographic Profile of Village Malana	52
4.2	Registration of Students in Government Primary School Malana	53
4.3	Registration of Students in Government High School Malana	55
4.4	Literacy in Malana Village	56
4.5	Status of Housing and Buildings in Malana	59
Chapter-VI		
6.1	Distribution of Land Holdings	76
6.2	Land use Classification (Village Level)	77
6.3	Land Utilization Pattern	78
6.4	Cropping Pattern	80
6.5	Indicators of Change in Cropping Pattern	82
6.6	Extent of Crop Diversification	84
6.7	Area and Production of Field Crops	86
6.8	Productivity of Field Crops	87
6.9	Returns From Field Crops on All Farms	88
6.10	Cost of Cultivation and Net Income from Field Crops	89
6.11	Economic Viability and Sustainability of Enterprises	90
6.12	Livestock Resources	92
6.13	Indicators of Change in Livestock Composition	93
6.14	Cost of Livestock Rearing	94
6.15	Livestock Production	96
6.16	Gross Returns from Livestock Rearing	97
6.17	Net Returns from Livestock Rearing	98

6.18	Plants/Trees Wealth	99
6.19	Production from Support Land	101
6.20	Sources of Support Land Products	104
6.21	Source-wise Gross Returns From Support Land Production/Collection	105
6.22	Cost and Returns from Support Land Production/Collection	106
6.23	Status of Farm Implements and Machinery	110
6.24	Labour Force and Occupational Pattern	110
6.25	Man Power Utilization	112
6.26	Components of Labour Employment on All Farms	113
6.27	Extent of Unemployment among Malanis	115
6.28	Status of Household Durables	116
6.29	Household Family Income	119
6.30	Pattern of Income, Expenditure and Savings	121
6.31	Change in Income, Saving and Investment	122
6.32	Household's Dependence for Food and Non-Food Items	123
6.33	Receipt of Food Items From Public Distribution System (PDS)	124
6.34	Components of Consumption Expenditure	126
6.35	Per Capita Consumption of Different Items	127

LIST OF FIGURES

Figure No.	Title	Page No.
Chapter-IV		
4.1	Growth Rate in Registration of Students in Government Primary School	54
4.2	Growth Rate in Registration of Students in Government High School	55
Chapter-VI		
6.1	Land Utilization Pattern	79
6.2	Cropping Pattern	80
6.3	Area and Production of Field Crops	86
6.4	Productivity of Field Crops	87
6.5	Livestock Composition	93
6.6	Cost of Livestock Rearing	95
6.7	Plants/Trees Wealth	100
6.8	Production from Support Land	102

LIST OF IMAGES

Plate No.	Title	Page No.
Chapter-II		
2.1	Private power project dam in Malana	26
2.2	Main Malana hamlet (Dhara Behr)	27
2.2a	Main Malana hamlet (Sara Behr)	27
2.3	Harcha, central place of Malana village	28
2.4	Multipurpose shopping store in Malana	31
2.5	Social sanctions/punishment charges in Malana	36
2.6	Mobile Satellite Towers in Malana	39
Chapter-V		
5.1	Littering menace to the village environment	63
5.2	ICT lab in Government High School in Malana	66
5.3	Smart class in Government High School in Malana	66
5.4	Devta Committee's central place Harcha in Malana (Lower House)	69
5.4a	Devta Committee's central place Harcha in Malana (Upper House)	69
Chapter-VI		
6.1	Kharif crop maize used as fodder in Malana	81
6.2	Status of traditional crops in Malana	83
6.3	Produce of maize crop in Malana	85
6.4	Honey production in dwelling house of Malana	103
6.5	Television dish in village Malana	117
6.6	Drying of cannabis (bhang) seeds on roof tops in village Malana	118
6.7	Cultivation of cannabis (bhang) on arable land in Malana	120
6.8	Destroyed cannabis crop on arable land by police officials in Malana	120

ABBREVIATION

Agri	Agricultural
CPR	Common Property Resources/Common Pool Resources
EDS	Extra Departmental Staff
GCA	Gross Cropped Area
GI	Galvanized Iron
Ha	Hectare
HRTC	Himachal Road Transport Corporation
ICT	Information and Communication Technology
IPH	Irrigation and Public Health
IPS	Indian Police Services
IRDP	Integrated Rural Development Programme
JBT	Junior Basic Teacher
Kgs	Kilograms
Kms	Kilometres
LADA	Local Area Development Authority
Ltrs	Litres
Misce	Miscellaneous
MNREGS	Mahatma Gandhi National Rural Employment Guarantee Scheme
NAS	Net Area Sown
NCB	Narcotics Control Bureau
NGOs	Non-Government Organizations
NTFP	Non Timber Forest Produce
NTP	Non Timber Produce
OBC	Other Backward Classes
PDS	Public Distribution System
PVC	Poly Vinyl Chloride
PWD	Public Wealth Department
Qtls	Quintal
Qty	Quantity
RCC	Reinforced Cement Concrete
Rs	Rupees
VMJSY	Vikas Mein Jan Sahyog Yojna

LIST OF NON-ENGLISH WORDS

Beena	Musk deer
Bhang	Cannabis
Birog	Panther
Chakar	Partridge
Chora and Guchhis	Mushroom
Dorighash	Anjwas
Ghahi	Black bear
Ghasa	Shawl made of pure wool
Ghoraal	Goral
Jujurana	Satyr tragopan
Kala tittar	Black partridge
Kalesha	White crested kaligi pheasant
Karath	Wild goat
Khundi	Women ornaments include ear-rings made of silver
Khunthi	Shirt type coat
Monal	Monal pheasant
Natti	Folkdance
Shahi	Porcupine
Tangrol	Himalayan Ibex

CHAPTER-I

INTRODUCTION

1.1 BACKGROUND

This is a repeat socio-economic survey of Malana village conducted in the year 2016-17. This research project was undertaken as a part of continuous village studies that used to be conducted by Ministry of Agriculture, Government of India, through its agro-economic research wing which has a network of agro-economic research centres throughout the country. The continuous village study was a system of panel data generation to meet socio-economic information requirement for an overarching field evidence-based inputs for agricultural development policy making. In the year 1992 Malana village was first studied by Agro-Economic Research Centre situated in Himachal Pradesh University, Shimla. These continuous village socio-economic studies were discontinued for some time in view of the perception that diagnostic studies needed more focus. Of late, however, in view of the agrarian crisis in the country, a need for reviving continuous village studies for turning these selected villages into research observatories for continuous generation of information to meet evidence based policy making and forewarning of coming socio-economic crisis in the villages was felt. The importance of reviving Malana as a sample village in continuous village studies lies in its being a typical, isolated, aboriginal village gradually experiencing development as a result of its interface with various socio-economic and state development forces. The repeat survey is expected to bring out interesting facets of rapid development and its consequences during a quarter of a century period since 1992 till date: 2017-18.

1.2 HISTORICAL PROFILE

The Malana people's account of their village's origin, such as where their ancestors might have come from, only further mystifies their history. Their legends, however, have it that a hunter during hunting discovered the village. Since the hunter had never seen this place earlier, nor him or the other people of adjoining areas understood the language of this village, this event was seen like two strangers joining each other's hands: *malana*, an Indo-Aryan word meaning joining, in the local dialect; and so the village became famous by this name. A legend still surviving in Malana and Kullu valley ascribes the tale of this village's birth to deity Jamlu, alias, Jamdagni *Rishi*. According to Malanis in the ancient times a demon by the name of Danu lived here. Jamdagni Rishi came from a place named 'Batant' in Spiti valley and settled at Hamta near Naggar in Kullu district. He later came to Malana and defeated Danu. Danu accepted his defeat and lost Malana to Jamdagni Rishi with the condition that Malana people would continue with their language. The Malanis language is said to be the same ancient tongue. It also has several words resembling with the Tibetan language, but from this one can hardly conclude that these

people might have come from Tibet. Nor is credible the popular, often-repeated in many other contexts, legend that they are the descents of a renegade band of soldiers who had deserted Alexander the Great's army which invaded India around 325 B.C. But among all these legends, the legend ascribing their origin to Rishi Jamadagni (Jamlu Devta) appears to be the most deeply rooted in the minds of these folks, a basis of their superior origin, customs, tradition and life.

1.3 PRESENT SCENARIO OF MALANA VILLAGE

Malana village has undergone discernible changes in appearance and nature. With Himachal Pradesh's attainment of full-fledged statehood, a numbers of offices and organizations related to public amenities appear to have come up in Malana. Leaving behind the by-foot connectivity, now the village boasts of a motor-able kucha road and full electrification. Most of the houses have toilet facilities. Around 73 percent houses have RCC structure. Village streets and foot paths are well developed, provided with proper drainage to channel water flowing from high elevation and passing through the village streets. Though, cleanliness of water channels is completely ignored. As if it is not enough, the entire village is surrounded by huge litters of non-degradable garbage of empty plastic water bottles, wrappers, and other packing materials.

1.4 BRIEF REVIEW OF LITERATURE

A.H. Diack (1896)¹ discussed the location of Malana village and its isolation from the rest of the world. He has asserted that this isolation has played an important role in preservation of the ancient dialects-Kanashi of the Malanis. The author has also given the crude tabulation of five dialects and has ascertained the resemblance of Kanashi with the others.

G. A. Grierson (1967)² studied the Tibeto-Burman languages along with the Kanashi-a dialect spoken in Malana village of district Kullu in Himachal Pradesh. He observed that the isolation of Malana village, from the rest of the world, has played an important role in the preservation of the same. Touching upon the grammar of the Kanashi dialect along with its translation, he has also given a comparative list of the words of six languages or dialects. He asserted that the Kanashi dialect somewhat resembles the Kanawari dialect.

¹ A.H. Diack, *The Kullu Dialect of Hindi: Some Notes on its Grammatical Structure, with Specimens of the Songs and Sayings Current amongst the People, and a Glossary*, The Civil and Military Gazette Press, Lahore, 1896.

² G.A Grierson, *Linguistic Survey of India, Vol. 3: Tibeto-Burman Family, Part 1*, Delhi, MotilalBanarsiDass, 1967.

Colin Rosser (1969)³ made an attempt to throw light both on the physical as well as socio-political and cultural features of Malana. The author termed the village as hermit village with its own unique culture, far away from the world outside it. He has observed that the dialect Kanashi of Malana must be one of the smallest languages in the world and has discussed in detail about housing pattern, caste, marriage system and economic life of Malanis. Further, Rosser has examined the role, functions and importance of political and judicial organizations of the village Malana, working under the influence and divine supervision of local deity Jamlu. He observed that the most striking fact about the political and judicial organization of the village appears to be the extent to which it rests on public sentiment.

Lal Chand Prarthi (1971)⁴ examined the socio-political, cultural and religious aspects of the people of Malana. The author has narrated some legends about the local deity Jamlu - the omnipotent and omniscient god both in the village as well as in the neighbouring areas. The inhabitants of Malana village, according to Prarthi, look like complete Aryan, however, somewhat close to Kirat and Tibetan by language. He also explained the practices related with democratic system of republic of Malana. He has observed that the system prevailing over there is unique in its characteristics.

Penelope Chetwode (1972)⁵ based on the experiences of her visit to the different places in Kullu district, has narrated a prevalent legend of a Brahmin and Jamlu devta in which Brahmin had to face the wrath of the devta for telling a concocted fake tale about the lineage of Jamlu. Further, she has mentioned that the devta Jamlu is Jamadagni Rishi-a sage described in Vishnu Purana.

M.S. Randhawa (1974)⁶ briefly discussed about the village Malana and its inhabitants. According to him, Malana village is isolated from the rest of Kullu and has a strange population. The author has very briefly discussed the features of Malana people and their culture. He has observed that the god Jamlu has enormous importance and extraordinary influence in lives of Malana people. In this context, the author has mentioned two legendary stories; one is related to god Jamlu and Emperor Akbar while the other is concerned with people of Saraj valley, who violated his sanctuary.

³ Colin Rosser, A Hermit Village in Kullu, in M. N. Srinivas, ed., India's Villages, Asia Publishing House, New Delhi, 1969.

⁴ Lal Chand Prarthi, KulootDesh Ki Kahani, Hindi, Neel Kamal Prakashan, Kullu, 1971.

⁵ Penelope Chetwode, Kullu: The End of the Habitable World, John Murray, Ltd., London, 1972.

⁶ M. S. Randhawa, Travels in the Western Himalayas: In Search of Paintings, Thomson Press Limited, Delhi, 1974.

Sukhdev Singh Charak (1979)⁷ illustrated an interesting story about the Tibetan origin of the inhabitants of Malana village. He has also narrated a legend, which glorifies Jamlu devta of Malana village.

Gautam Sharma (1980)⁸ made a modest attempt to perceive the village administration and social ceremonies of the village Malana. The author has observed that language of Malana-Kanashi, is somewhat close to Kirata language. He has also narrated a mythological legend related with local god Jamlu-the omnipotent head of Malana village. He further has written that Jamlu-a charismatic god, is the preserver as well as a destroyer according to the inhabitants of village Malana.

G.D. Khosia (1980)⁹ described the physical features of Malanis, their marriage and exchange systems. A brief discussion on the election of three heads-the Kanriisht, Pujiyara and Goor of the political and judicial systems of Malana village has also been undertaken. Further, the book also contains two prevalent mythological legends among Malana people-one reveals the founding of the republic of Malana, and the other glorifies the local god Jamlu.

J.R. Verma (1980)¹⁰ examined the economy of Malana village in-terms of agricultural activities, crop pattern, livestock rearing, sheep breeding and collection of medicinal herbs etc. The author has comprehensively described the developmental activities performed by the government in Malana village and their impact on the people of this village.

M.R. Thakur (1981)¹¹ comprehensively described a mythological legend ascribing the establishment of the village Malana by Rishi Jamadagni, who defeated a cruel Rakshasa – Banasur in a fierce battle and founded Malana.

A.F.P. Harcourt (1982)¹² revealed some hidden facts about the Malana village and the lifestyle of this little human settlement. The author has briefly ascribed a vague mythological legend related with formation of the village by the god Jamlu. He has considered this village as one of the greatest curiosities in Kullu

⁷ Sukhdev Singh Charak, History and Culture of Himalayan States, Vol.2: Himachal Pradesh, Part 2, Light and Life Publishers, New Delhi, 1979.

⁸ Gautam Sharma Vyathit, Himachal Pradesh: Lok Sanskriti Aur Sahitya, National Book Trust, New Delhi, India, 1980.

⁹ G.D. Khosia, Of Mountains and Men, Allied Publishers Private Limited, New Delhi, 1980.

¹⁰ J.R. Verma, Impact of Development on Malana, Kullu Dushehra: AntanashtriaLokNriyaSamaaroh, by J.C. Dutt, Annual Magazine, October, 1980.

¹¹ Maulu Ram Thakur, Himachal Main Pujit Devi-Devta, Hindi, Rishabhacharan Jain EvamSantati, New Delhi, 1981.

¹² A.F.P. Hercourt, The Himalayan Districts of Kooloo, Lahual and Sipiti, Vivek Publishing, Company Delhi, 1982.

district due to its unique and distinct features. He has very briefly discussed the physical features of people of Malana. Further, the author has narrated a unique custom in the village to settle all disputes before a local tribunal.

J. Hutchison and J. Ph. Vogel (1982)¹³ have mentioned an interesting commentary on the Tibetan origin of the Malana people in the upper Parvati valley, who claim to be the disciples and incarnations of Jamlu. The authors have narrated a legendary story concerned with Akbar and god Jamlu of Malana in which the Emperor Akbar bowed before the god to appease the wrath of Jamlu. According to a legend, it has been said that Akbar visited Malana, however, the authors have assumed it incorrect.

Government of Himachal Pradesh (1982)¹⁴ conducted a field work study, which contains adequate information about the village Malana and provides important knowledge about the inhabitants, demographic composition, agriculture, animal husbandry, industries, education, employment, housing and socio-economic conditions, medical and public health, income expenditure and indebtedness of the village Malana. The document also records some suggestions for the development of this isolated village.

D.D. Sharma (1982)¹⁵ observed that linguistic area of Kanashi is the tiny village of Malana of district Kullu. He is of the opinion that the linguistic evidences prove beyond doubt that Kanashi is very much a part and parcel of the Western group of the pronominal zed Tibeto-Himalayan languages. He has tried to trace the linguistic affinities of Kanashi language with other Tibeto-Himalayan dialects, namely, Kinnauri and Lahauli.

Asha Sood (1983)¹⁶ highlighted the main features of village Malana. The work gives a general idea about the physical feature and occupations of the inhabitants, as well as dialect and devta Jamlu of Malana village. Further, the author has tried to perceive the composition of two houses of the village committee, the role and the functions of the office-bearers of the legislative, executive and judicial institutions of the village. She has also narrated a mythological legend concerned with the Emperor Akbar and Jamlu devta-the omnipotent head of Malana village.

¹³ J. Hutchison and J. Ph. Vogel, History of Panjab Hill States, Vol. 2, Department of Languages and Culture, Shimla, Himachal Pradesh, 1982.

¹⁴ Socio-Economic, Survey of Malana (District Kullu, H.P.), Department of Economics and Statics, Himachal Pradesh Government, Shimla, 1982.

¹⁵ D.D. Sharma, Tribal Languages of Himachal Pradesh, New Delhi, Mittal Publications, 1992.

¹⁶ Asha Sood, "Malana Janapada", Kullu DushehraSmarika, by J.C. Dutt, Annual Magazine, October 1983.

Sudershan Vashishtha (1984)¹⁷ narrated a mythological legend related to the establishment of the village Malana. The author has compared the people and their today features, language, the art of wooden carving and culture of Malana village with some neighbouring areas. He ascribed the distinct and specific characteristics of the bicameral republic of Malana. He, however, also observed that the influences of modernization may affect this unique system of government.

Puran Chand (1984)¹⁸ made an attempt to study the biological differences of the Malanis in relation to some neighbouring populations, viz., Kinnauras, Lahualies and Kullawis on the basis of morphometric data. Some cultural attributes like migration and linguistic records have also been studied to provide supportive evidence for tracing ethnic affinities. The data comprising head and body measurements, genealogical record and a list of 100 words of common vocabulary have been analyzed with some objectives related with morphological importance. The researcher has tried to make a comparative morphometric study of the Malanis of Malana glen and some neighbouring populations of Himachal Pradesh with a view to highlight a quantitative analysis of ethnic differences among these populations. In this work an attempt has also been made to trace the origin and ethnic relationship of Malanis with the neighbouring populations of Himachal Pradesh, with whom they share some common linguistic and cultural experiences.

N.K. Sharma (1988)¹⁹ described the physical features of Malana village and the unique characteristics of the socio-political-cultural and religious aspects of the Malanis society. The author has highlighted the hard geographical condition, location, climate, arduous routes and flora and fauna of the village Malana. He has narrated some legendary stories about the establishment of Malana's republic and has written that the Vedic sage Jamadagni (Jamludevta) is the founder of this village. He further highlighted the social ceremonies, i.e., marriage, death ceremony, royal hunting etc.; and the economic activities, i.e., farming, sheep rearing, collection of medicinal herbs, bee keeping, etc., of the Malanis community. He has stratified the Malanis society on the basis of castes and clans, and has described the religious ceremonies, which are performed during the celebration of fairs and festivals in the village. The author has examined the composition, role and functions of the various social and political institutions, viz., legislative, executive and judicial, of Malana village. An account of the

¹⁷ Sudershan Vashishtha, *Beas Ki Dharaa*, Hindi Himachal PustakBhandar, Delhi, 1984.

¹⁸ Puran Chand, *Group Differentiation in Isolation: A comparative morphometric study of Malanis in relation to some neighbouring population of Himachal Pradesh*, Ph.D. Thesis, Department of Anthropology, Punjab University, Chandigarh, 1984.

¹⁹ Narender Kumar Sharma, *Malana: Puratan Sanskriti KaPrateek*, BhavanaPrakashan, Delhi, 1988.

Independence Day of Malana village from the atrocities of Banasur is also described in this work. Sharma has concluded the work by asserting that the democratic system of Malana village is far better than the present democratic system prevailing in the rest of the world.

F. S. J. Gore (1989)²⁰ described the location of Malana village and the physical features, nature and dialect of Malanis. The author has also mentioned the art of wooden carvings on houses in the village.

Tej Vir Singh (1989)²¹ narrated two legendary stories ascribing the prominent position and extraordinary influence of Jamlu devta of Malana village on the people of Kullu district. One legend talks of the Thara-Karadu, i.e., 360(18X20) deities of Kullu district, and Jamlu devta, while another about Jamlu and the Emperor Akbar.

Narotam Thakur(1992)²² dealt with the social and political institutions of Malana village. The work gives the general idea about the place, people, political institutions and administrative structure of Malana village. Further, it provides information about the location, altitude, environment, living standard and literacy rate in Malana and the legends about the Malanis. The researcher has tried to comprehend the social structure of Malana community through the analysis of various institutions such as marriage, family, status of women, sources of entertainment etc., and their inter-dependence. He has also categorized the political system of Malanis governance into three levels of authority, i.e. Jamlu (King), Mundi (Cabinet) and Jaishthang (Parliament). Besides, the role of Judiciary and Financial Institutions are also discussed. He has concluded the work with the social change in the village and the impact of modernization on the lives of Malanis with the passage of time.

Sonia Thakur (1992)²³ made an attempt to visualize the pattern of direct democracy of Malana and tried to comprehend the social structure of Malana community through detailed analysis of various institutions and their inter-dependence. Focus is laid on structural aspects such as land ownership, division of labour, exchange pattern, etc. of the village. Further an attempt has been made to understand Malana's political set-up along with other social and religious institutions.

²⁰ F. S. J. Gore, *Lights & Shades of Hill life*, Oriental Publishers, Delhi, 1972.

²¹ Tej Vir Singh, *The Kullu Valley: Impact of Tourism Development in the Mountain Areas*, Himalayan Books, New Delhi, 1989.

²² Narotam Thakur, *Zila Kullu main Malana Gaon Ki Samajik Tatha Rajanitik Sansthan*, M.Phil. Dissertation, Department of Political Science, H.P. University, Shimla, 1992.

²³ Sonia Thakur, *A Sociological Study of the People of Malana in Himachal Pradesh*, Ph.D. Thesis, Department of Sociology, Punjab University, Chandigarh, 1992.

D.V. Singh and B.K. Sikka (1992)²⁴ conducted a detailed village study of Malana village, aimed at to study the demographic and cultural features of the Malanis, their economic resources, production systems, and democratic and public institutions. They analyzed the status of real wealth, i.e. land, labour, animals, trees, implements and household durables, the production economics of different enterprises, the income expenditure and saving pattern, economic viability and sustainability of enterprises of Malanis.

C.S. Panchani (1994)²⁵ touched upon some features of the inhabitants of Malana village and their political and judicial systems. According to him, the Malanis are quite advanced as far as their political system is concerned. They have a democracy, which is not found prevailing in any other Himalayan tribe. The author has tried to highlight the features of democratic system being practiced in the republic of Malana. According to him, the republic ran in the name of Jamlu devta. The author has also explained the working of judicial system prevalent in the village and has written that the court of Lord Jamlu acts as the Supreme Court whose decisions are final and binding upon all.

Punjab Government Gazetteer of the Kangra District (1994)²⁶ throws some light on the strange customs and traditions of Malana village. It is an authentic document, which highlights the different aspects of the lives of Malanis community such as language, housing pattern, illiteracy and inter-marriage system.

M.R. Thakur (1996)²⁷ examined socio-political and judicial systems of Malana village. He considered the village governance system of Malana as the best example of republican form of government. The author has also described the physical features of Malanis, their food habits, language, dress, marriage system etc.

D.R. Shabab (1996)²⁸ briefly discussed the location of Malana village. While writing about Jamlu, he has ascertained his exalted position among all the village gods of Kullu district. The author is of the view that Jamlu devta is a Buddhist

²⁴ D.V. Singh and B.K. Sikka, Malana: an Oldest Democracy, Sustainability Issues in Village Economy (Himachal Pradesh), Agro-Economic Research Centre, HP. University, Shimla 1992.

²⁵ C.S. Panchani, The Himalayan Tribes, Konark Publishers Private Limited, Delhi, 1994.

²⁶ Punjab Government Gazetteer of the Kangra District: Kulu, Lahul and Spiti, Part 2 to 4, Indus Publishing Company, New Delhi 1994.

²⁷ M. R. Thakur, Pahari Sanskriti Manjusha, Hindi, Reliance Publishing House, New Delhi, 1996.

²⁸ Dila Ram Shabab, Kullu: Himalayan Abode of the Divine, Indus Publishing Company, New Delhi, 1996.

deity of wealth, who was the king of Spiti region, who later on migrated to Malana village. He has also narrated a legendary story related to the Mughal Emperor Akbar and Jamlu devta. He described the role and functions of political and judicial institutions of the village.

V. Bhalla and P.C. Sharma(1996)²⁹ examined the different aspects of lives of Malanis. At the outset, the authors have expressed the view that many centuries ago; the ancestors of Malanis had migrated from different places in the Parvati and Kullu valleys. According to them, the names of five out of eight existing clans in Malana village lend support to this contention. In this article, these authors have tried to highlight the different aspects of Malanis community life, i.e., body features, dress, food habits, clans, fairs and festivals, marriage system, the role of women in various activities of the village, land and agriculture, economy, flora and fauna, etc. Further, they have also examined and analyzed briefly working of Malana's village council and Gram Panchayat. In the end, the authors have tried to visualize the impact of modernization on the village.

Surat Thakur (1997)³⁰ highlighted some outstanding features of village Malana. The work gives the general idea about the location, the inhabitants, language, fairs and festivals, social ceremonies, economy, village administration, and god Jamlu of Malana village. He has discussed the composition, roles and functions of political and judicial institutions of the village. A prevalent legend, which glorifies the Jamlu devta is also narrated by him. He is of the view that the unique and enriched culture, which the Malanis have nurtured and nourished from centuries, is intact even today.

M. R. Thakur (1997)³¹ narrated a mythological legend concerned with the great Vedic sage Jamadagni (Jamlu-the titular and spiritual head of Malana), the Banasur and the Thara-karadu (eighteen deities of Kullu district). Further, he has given a brief description of the selection procedure of the Goor of Jamlu devta. The author has also described the role and functions of the office-bearers of the local village administration of Malana.

Tobdan (2000)³² described the prominent position and extreme and extraordinary influence of Jamlu devta of Malana village. He also narrated a legendary story

²⁹ V. Bhalla and P. C. Sharma, "Malanis", in K. S. Singh, et al. People of India: Himachal Pradesh, Vol. 24, Anthropological Survey of India, New Delhi 1996.

³⁰ Surat Thakur, ParyatakonKaSwarga – DevBhoomi Kullu, PuratatvaChetanaSangh, Kullu, 1997.

³¹ M. R. Thakur, Myths, Rituals and Beliefs in Himachal Pradesh, Indus Publishing Company, New Delhi, 1997.

³² Tobdan, Kullu: A Study in History (From the Earliest to A D 1900), Book India Publishing Company, Delhi, 2000.

concerned with Emperor Akbar and Jamlu devta, in which devta helps incurring the deformity of the Emperor's daughter. He also has written about the fairs of Malana village.

Vidya Sharma (2001)³³ comprehensively narrated a mythological legend ascribing the establishment of the village Malana. The author has highlighted the twelve abodes of Jamlu devta in different places of district Kullu. He has also given a brief description of the fairs and festivals, dedicated to Jamlu devta and the traditional costume donned by the Malanis at the time of celebration of the same.

Narender Sharma (2001)³⁴ focused on the study of the customary laws, which are being practiced in Malana village. It is a modest attempt to know as to what extent the customary laws of the village are effective in Malanis society. It starts with the general idea about the location, place, people, language, legends, economy and occupations of the Malanis. This is followed by the study of social-structure of Malanis society with a reference to the working of the customary laws in various institutions such as proprietary rights of the villagers, matrimonial matters, election system and composition of village council. He observed that Malanis have their own way of life and well-entrenched customs. They have not as yet been integrated socially, politically, economically and even legally, with the rest of the society in Kullu district, and the state at large.

Parveen Kumar Sharma (2002)³⁵ narrated a mythological legend related to the local deity Jamlu devta (Rishi Jamadagni) and a giant (Rakshasa). Though, the work is mainly focused on the study of Medicinal and Aromatic plants in Parvati valley of Kullu, however, the author has also attempted to study the socio-political and judicial set-up of the village Malana located in Parvati valley.

Virender Kumar (2005)³⁶ studied the ethno archaeological aspects of Malana village. The study gives general idea about the geographical condition of Malana village, and the legends related to Jamlu devta and its assets and rights. He describes the jurisdictions of Jamlu devta in different places of district Kullu and

³³ Vidya Sharma, Kulaant Darpan, Kullu, Chander Prakashan, Kullu, 2001.

³⁴ Narender Sharma, Philosophy of Customary Jurisprudence: A Case Study of Malana Village in District Kullu of Himachal Pradesh, LL.M. Dissertation, Department of Laws, H.P. University, Shimla, 2001.

³⁵ Parveen Kumar Sharma, Studies of Phytodiversity of Medicinal and aromatic Plants in Parvati Valley, Himachal Pradesh, Ph.D. Thesis, College of Forestry, Dr. Yashwant Singh Parmar University of Horticulture and Forestry, Nauni-Solan (Himachal Pradesh), 2002.

³⁶ Virender Kumar, Malana Ke Jamlu Devta: Nrivanshpuravasheshiya Adhyayan, M.Phil. Dissertation, Department of History, H.P. University, Shimla, 2005.

discusses the features of the holy buildings of the devta established in Malana village, and fairs and festivals and the society.

From the writings of the earliest foreign explorers, academicians, linguists, anthropologists, and travelers, and those of the natives from Kullu, and Indian scholars and researchers; one gathers various impressions of Malana village. Serious observers like A.H. Diack (1896), Colin Rosser (1969), and Penelope Chetwode (1972) have talked of this village as a human habitat in isolation from the rest of the world, including its immediate adjacent territories of Kullu District and the larger world outside. The dominant impression in terms of both minimal interface with the outside world on account of governance and socio-economic dependence is that the village's existence in isolation with its own social and cultural milieu was a way of keeping itself intact from the larger state interventions in its life. The idea behind a hidden settlement beyond the reach of the largest state appears to be living in complete freedom. This appeared to have paid off well in so far, as it is concerned with the preservation of the village's ways of social, cultural, spiritual and governance framework. But all this has worked against the core requirement of socio-economic developmental dynamism of this rather glamorous village with a unique direct democracy, headed by a patron deity and his functionaries and a close-to-perfect system of representative council under it.

1.5 OBJECTIVES AND METHODOLOGY

Need and Importance of the study

Continuous village studies are important means for understanding the socio-economic dynamism of villages. Panel data collected over time on the social and economic aspects of village communities becomes the basis for analyzing various changes taking place and provide basis for evidence-based agricultural development policies. They throw light on the conditions that enabled farmers to survive through ups and downs in the farming conditions. Socio-economic and institutional strengths and constraints of the village society are brought forth by such studies, to enable the policy makers and planners attempt precision planning for the villages suiting their unique socio-economic and cultural heritage for the village communities' sustainable development.

The revival of continue village study will act as a mechanism to ensure the flow of information and analysis of socio-economic and environmental dynamics of village so that these inputs can be used to prevent the crisis situations and promote sustainable development of the village as a whole. Interestingly Malana has, over the centuries, preserved its individuality, isolation and was least influenced by outside influences. Inhabitants retain infallible faith in their

customs and tradition and work to ensure continuation, while at the same time resisting intrusion of any influences into their age-old systems. The present resurvey of the village is a significant effort towards understanding the socio-economic development undercurrent that this village, known by the epithet of the *Last Direct Democracy of the World*, wherein every important issue is decided by the direct participation of the common people in the assembly headed by the Jamlu devta, the village deity.

In view of the above, Government of India advised AERC, Shimla to undertake a study of village Malana, which is known for its unique socio-economic and cultural traditions. This study will be unique in the overall scenario and certainly be a value addition to the existing literature, including socio-economic study of village Malana in 1992 by AERC of Himachal Pradesh University Shimla, particularly in highlighting and examining the notion and practice of democracy at village level.

Location of the Study

The present study pertains to the Malana village in Kullu district of Himachal Pradesh. Till now, this region has remained alienated from the mainstream of socio-economic transformation and economic development due to inaccessibility and remoteness. Agriculture is of special significance for this remote area as entire population depends on it due to lack of other non-farm avenues of employment. So, study of changing scenario of agriculture would help in formulating better development strategies for the area.

Objectives

The objective of this resurvey is to measure the socio-economic and ecological changes that have taken place during this quarter of the century, since 1992. It focuses on the structural changes in the social and economic arena of production, natural resource use, land use pattern, demography, and public institutions.

Data Base

Both the primary and secondary data have been collected for the present study, building on the data generated by the first study. During 1991 there were 170 households which has now increased to 317 (2017). Census method was adopted for the collection of necessary data on prescribed schedules from all the households. The reason behind adopting the census method is Malana village's smallness. The data from other sources and village level institutions was also gathered. The existing village level institutions like Schools, Health Centre and Public Distribution Store were also enumerated in detail. The village level functionaries, like Pradhan, Up-pradhan, Anganwari workers, Ward Members, Panchayat Secretary and Patwari were also consulted to know the functions they

were performing. One native Anganwadi worker helped the study team to procure data and also in field work.

Analytical Framework: To meet out the objective of the study, the following statistical tools and techniques have been used:

Cost of Cultivation

For the determination of cost of cultivation and production of crops, the standard methodology has been adopted.³⁷

Cost A1 = Value of hired human labour, value of owned and hired bullock and machine labour, value of seed, manure (owned or purchased), plant protection material, fertilizer, depreciation of implements, farm buildings and animals, irrigation charges, land revenue and other taxes, interest on working capital and miscellaneous charges if any.

Cost A2 = Cost A1+rent paid for leased in land.

Cost B = Cost A2 + imputed rental value of owned land (Less land revenue paid there on) +interest on owned fixed capital (excluding land).

Cost C= Cost B + imputed value of family labour.

Paid out Cost: Cost C – (Imputed rental value of land, imputed value of family labour, owned bullock and machine labour and interest on fixed capital).

COST OF LIVESTOCK REARING

The actual cost incurred on account of feed and fodder. Labour charges for the upkeep of the animals, veterinary aid, etc. have been taken into account for computing the maintenance cost. The appreciation and depreciation in the value of cattle has been taken into account too.

The percentages of the value of animal as appreciation/depreciation are:

Draught Animals

- 1 to 3 years+10
- 3 to 5 yearsConstant
- Above 5 years- 12.5

Milch Animals

- 1 to 3 years+10
- Up to 5th lactation+20
- Above 5th lactation-20

³⁷ Cost of Cultivation Scheme, Directorate of Economics and Statistics, Ministry of Agriculture, Government of India, New Delhi.

(+) indicates appreciation and (-) the depreciation in the in the value.

Standard Animals Units (S.A.U)

The following livestock represented in standard animal unit are as follows:

A cow or buffalo above three years of age	= One SAU
A young stock of one to three years of age	= 0.5 SAU
A young stock of less than one year of age	= 0.25 SAU
A sheep or goat	= 0.20 SAU
A Bullock above three years	= One SAU
A Young Stock one to three years	= 0.5 SAU
A Young Stock below one year	= 0.25 SAU

Magnitude of crop diversification

The magnitude of crop diversification among the farmers has been worked out with help of Herfindhal Index.

$$\text{Herfindhal Index} = \sum_{i=1}^n p_i^2$$

Where

Pi = is the proportion of area under ith crop and

$$P_i = \frac{A_i}{\sum_{i=1}^n A_i}$$

In which

Ai = actual area under ith crop.

I = 1, 2, 3-----n (Number of crops)

n = total number of crops.

The index is defined as sum of the squares of all 'n' proportions and is a measure of concentration. For increasing diversification, H is decreasing and vice-versa. It is bounded by '0' (complete diversification) and 1 (complete specialization). Herfindhal index is an inverse measure of crop diversification. It assumes that very large alternatives of production choices are available. Taking the case of crops, Herfindhal Index assumes that there exists a very large number of crops, which can be grown by the farmers. If the total area was equally shared among the large number of crop alternatives, then the share of each crop would be near to zero. Therefore, this index uses deviations between actual shares of each crop against equal share of all possible alternatives given by zero.

Compound Annual Growth Rate

The compound annual growth rate has been worked out with the help of following formula.

$$\text{CAGR} = \left(\frac{\text{EndYear}}{\text{StartingYear}} \right)^{\left(\frac{1}{\text{Periods}} \right)} - 1$$

Extent of Unemployment

In the present study the extent of unemployment has been worked out with the help of Time Criterion. The women, children and old person's working days have been converted into standard mandays by attaching proper co-efficient of efficiency.

$$1\text{CD} = 1\text{OD} = 0.50 \text{ MD}$$

$$1\text{WD} = 0.75 \text{ MD}$$

Both family and hired labourers are taken into account in this study. According to 'Time Criterion' a person has been termed as unemployed or underemployed if he worked for less than 8 hours a day or 25 days in a month or 300 days in a year.

Percentage Change

In the present study percentage change has been worked out with the help of following formula:

$$\text{Percentage change} = \frac{X1 - X2}{X2} \times 100$$

X1 = Value of parameter under 2016-17

X2 = Value of parameter under 1990-91

1.6 DEFINITIONS AND CONCEPTS

Mountain Specificities: The important conditions characterizing areas, which for operational purposes, separate mountain habitats from other areas are referred to as Mountain Specificities.

Sustainable Development: Development that meets the needs of the present generation, without compromising the ability of future generations, to meet their own needs.

Universe: The whole group from which the sample has been drawn is technically known as universe.

Census Method: Census method refers to the complete enumeration of a universe. Census Method is necessary in some cases like Population Census, Agriculture Census and Animal Census for gaining vast knowledge.

Household: A household is a group of family members/ persons normally living together and taking food from common kitchen.

Literate: Those who can read and write are treated as literate in the present study.

Literacy: Literacy is an important demographic trait which portrays the quality of the population and provides impetus to the economic development. In Census, population aged seven and above years, who can both read and write with understanding in any language is treated as a literate.

Reference Period: Reference period means, the period to which survey data refers. In the present study the reference period is the year 2016-17.

Dependents: Those persons, who are depend on others, for their livelihood. Person falling in the age group of less than 18 years and greater than 59 years are considered as dependents in the present study.

Productive Activities: All those farm and non-farm activities, which provide gainful/remunerative employment opportunities to the family human labour and directly add to the household income, have been treated as productive activities for the purpose of present study.

Assets: Everything that a household owns and which have a money value is classified as an asset. The assets of the households are those items from which he hopes to get an income or which he keeps to protect his interests. In the present study the household assets have been divided into two categories viz., productive and unproductive assets (i.e. household durables). All those household assets (such as land, livestock, poultry, agricultural implements, household industries, commercial vehicles and rented-out building etc.) have been termed as productive assets which provide gainful employment to the family human labour and directly add to the household income. The household durable constitute those assets which have no direct effect on household income and/or employment but they indirectly help to raise the efficiency, skill as well as the levels of living of the household which include good housing conditions, electrical appliances, furnishing articles and bedding etc.

Individual and Joint Holding: If the land holding is operated either by one person or by a group of persons being members of the same household the holdings is called individual holding. If two or more persons belonging to different households share jointly (as partners) the economic and technical responsibility for the operation of the agricultural holding, the holding is called joint holding.

Agricultural Labourer: All those persons without any land but having a homestead and deriving more than 50 per cent of their income from agricultural wages have been termed as agricultural labourer.

Non-Agricultural Labourer: Those who derive their income partly from agriculture and partly from other sources fall under this category provided at least 50 per cent of their income is from non-agricultural sources. They need not have a homestead but must be residents of the village in which they are identified.

Earners: All such household members who contribute financially towards the total family income are called earners. An earner is defined as one whose income is sufficient for his (or her) maintenance, and earning dependent as one whose income is not adequate for his (or her) maintenance and non-earning dependent as one who earns no income at all and is dependent for his (or her) maintenance on others.

Gainful Employment: In general the gainful employment is a situation when all the workers in an economy are in a position to get employment at the existing wage rate according to their skill, ability and qualifications for the optimum number of days (i.e. 300 days) in a year.

Unemployment and Underemployment: Unemployment is a situation when persons even after their best possible efforts are not in a position to get work/job at the existing wage rate or even at a lower wage rate. Whereas, underemployment is a situation, when persons are engaged in work/job at a wage rate, which is lower according to their qualification and abilities. All those persons are considered underemployed if they are forced to take a job that is not adequately remunerative or does not commensurate with their skill, ability and training. According to 'time criterion' unemployment and underemployment is a situation when persons are either gainfully occupied during the year for a number of hours (or days) less than some normal or optimal hours (days).

Size of Holding Categories: The Directorate of Agricultural Census has classified the farmers of Himachal Pradesh into the following five categories viz., marginal, small, medium and large farmers, on the basis of their land holdings. (i) Marginal Farmers: All households with a land holding of <1 hectare have been termed as marginal farmers; (ii) Small Farmers: All households with a land holding of 1-2 hectares have been considered as small farmers; (iii) Medium Farmers: All households with a land holding of 4-10 hectares have been termed as medium farmers and (iv) Large farmers; All households with a landholding of above 10 hectares have been considered as large farmers.

Household income: Household income includes current income of all members of the household from all sources. It consists of both farm and non-farm income.

Labour Force: The standard definition of labour force includes the males and females falling in the age group of 18-59 years, but males and females falling in

the age group of 9-18 years as well as 59-65 years also perform some light household activities, hence they have also been considered in the labour force (after converting them in to standard mandays) in order to avoid the under-estimation of the magnitude of unemployment and/or under-employment in the present study.

Primary vs Secondary Occupation: Primary occupation has been taken as the one among the listed occupations from which a household derived maximum percentage of income, i.e. greater than 50 percent of the total household income. Secondary occupations have been taken as those among the listed occupations from which a household derived meager percentage of household income (i.e. less than 50 per cent).

Productive vs Necessary Activities: All those household activities (both agricultural and non-agricultural) which provide gainful employment to the family human labour and add directly to the household income have been treated as productive activities for the purpose of present analysis. All household activities, related to family and social affairs, although involving human labour days utilization, yet neither providing gainful employment to the family human labour, nor directly adding to the household income, even while amounting to utilization of human labour days for social survival obligations – are defined as necessary activities.

Operational Holdings: An operational holding includes all land which is wholly or partly used for agricultural production and is operated as one technical unit by one person alone as well as with others without regard to title, legal form, size or location. The technical unit is that which is under the same management and has the same means of production such as labour force, machinery and animals.

1.7 ORGANIZATION OF THE REPORT

This report is divided into seven chapters. In the first chapter, background information, historical profile, present scenario of Malana village, brief review of literature, and methodology are given. The second chapter presents an overview of the village, i.e. location, people, religion and society, climate, flora and fauna, road and communication etc. In the third chapter, mountain specificities and various indicators of sustainability of mountain system of Malana are discussed in detail. In the fourth chapter, demographic profile, educational status, seasonal migration and status of housing and beddings are discussed. The fifth chapter presents the status of public and social institutions, like drinking water supply scheme, electricity, medical and public health, the experience of co-operative

societies, public institutions like educational and post office, other development programmes and government aids including Malana panchayat. The most powerful institution i.e. Jamlu devta trust who is managing the legal and administrative system of Malana is discussed in detail in this chapter. Chapter six is the most important chapter of the report. It includes in-depth study of economic resources of Malanis, their production system, household economy and the potential of economic viability and sustainability of various activities performed by Malanis. The seventh chapter gives a brief on the findings of the study and emergent policy recommendations for improving socio-economic and environmental conditions of the village.

CHAPTER - II

AN OVERVIEW OF VILLAGE MALANA

2.1 LOCATION

Malana village is located at a distance of 15 kms from Jari at the elevation of about 9000 ft. above mean sea level on the east side of Chander Khani Pass. It is situated on the right bank of Malana torrent that joins the river Parbati at Jari. The village is in sharp contrast to the lush Himalayan woods on the way to Malana. It is rather located on a comparatively barren strip of ground on the edge of a narrow gorge. The village is surrounded on all sides by sharp vertical rocks. On the East, the village is surrounded by Manikaran, Kasol and Rasol and on the south by Jari. On the west it is surrounded by Chanderkhani pass and Nagger valley, while its north side is dominated by the glittering snowy peak of the Deo Tibba Mountain in Spiti mountains. The geographical area of the village in the year 1951 was 437 hectares. However, on reorganization of the state some area of it was retained by the Punjab State, consequently leading to reduction of the area of Malana.³⁸ Now, according to revenue papers, the total geographical area of the village is 176.28 hectares. It was 179 hectares during 1990-91. The slight decrease in the geographical area may be due to the opening of new road connection to Malana territory. One private power project, M/s Everest Power Pvt. Ltd. along with a small water dam has also been established in the Malana territory (Image 2.1), resulting in decrease of 2.72 hectares in the total geographical area of the village during last 25 years.

The Malana territory spreads in six sub-divisions, namely Malana, Thosko, Nerong, Dhadon, Magic Valley and Bhelag. According to the first survey during 1990-91, the village had five sub-divisions. The 2016-17 survey found one more sub-division namely Magic Valley. Malana is divided into two parts. The upper portion called Dhara Behr on the West, and the lower portion called Sara Behr on the East.³⁹ *Sir James Lyall* describes in his words, “the Malana village consists of two behrs or quarters”. In between Dhara Behr and Sara Behr, there is a sacred place which is known as Harcha where the village elders often meet (Image 2.1). Here, no one is allowed to enter with leather shoes on. Though the

³⁸ Krishan Kumar, An Experience in direct democracy- A Case study of Malana village of District Kullu, unpublished PhD Thesis, Department of Political Science, HPU, Shimla, 2006.

³⁹ Puran Chand, Group Differentiation in Isolation: A comparative morphometric study of Malanis in relation to some neighbouring Populations of Himachal Pradesh, unpublished PhD Thesis, Deptt. of Anthropology, Punjab University, Chandigarh, 1984.

sacred place still exists in the centre of the village, the traditions of Harcha have changed a lot.



Image-2.1: Private power project dam in Malana



Image-2.2: Main Malana hamlet (Dhara Behr)



Image-2.2a: Main Malana hamlet (Sara Behr)



Image-2.3: Harcha, central place of Malana village

2.2 PEOPLE

As a primitive, isolated, and near self-reliant village community, the people of Malana continue to be extremely apprehensive of anybody approaching their territory. It appears that their attitude of non-reliance on folks outside their own village has remained as undiluted as it had been in their distant past. A negligible change in the social psyche has taken place even with increased interaction with the outsiders. The primitively unique aboriginal society of this village is as much distinct in its people's physiological build and appearance in skin colour of both

male and female, i.e., wheatish in general, and brighter in complexion; as in their extremely shy and reserved demeanors. It is worth mentioning here that in their long existence as a village in autarky, it was only in 2016 that Malanis in recognition of their social change and wisdom felt the need for inviting one barber family to settle down in the village to attend to the villagers' need for haircut.

2.3 DRESS AND ORNAMENTS

No change has been observed in the traditional dressing style of Malana people over the years. The men's dress resembles with the dress worn by the peasantry in Kullu region. Women wear round brown cap and plaids of a sober gray colour, which is different from other people in the region. It is seen to be a monk like coat of modern brown cloth that is carelessly adjusted across the head piece and allowed to hang down the shoulders. It is called 'Gasha' made of pure wool. The males wear woolen or cotton shirts, tight pyjamas, coat, basket and caps. The elderly people still wear a shirt type coat called 'khunthi'. With the improvement of their financial position, Malanis have started wearing modern clothes, which are available in the market of nearby areas of the region. With the change of time, men and women have started wearing clothes made of artificial yarns such as tericot and polyesters. Women tighten their pattu (Gasha) on the body with the help of iron and silver nails connected with chains or threads which are called Pichu. The pattu is tightened with a cloth piece known as kho. The women ornaments include ear-rings mostly made of silver and are called 'Khundi'. Each woman wears gold or silver disc in nostril and a number of silver or gold rings in each earlobe. This ornamentation style may be due to prosperity in the village.

Earlier, shoes were made from the threads mainly prepared from Bhang (a narcotics plant-cannabis) and other fibres. The old generation is still continuing with the same type of shoes. These types of shoes are called khobe. The shoes prepared by goat hair are also in use. With the inflow of money, the young generation has started the use of factory made PVC shoes. Earlier, the use of leather shoes within the village was restricted but in the present time number of outsiders, mostly tourists, are passing through the streets of the village with leather shoes. Nobody objects to outsiders wearing leather shoes, except within the premises of Harcha.

2.4 LANGUAGE AND DIALECTS

The language spoken by the people of Malana is called 'Kanash'. It is quite different from the language in adjoining regions. Almost every Malani understands Hindi language. It is interesting that nobody understands the language/dialect spoken by Malanis but themselves. During the field survey, some of their common words were noted and are presented in Table 2.1. The young

generation follows the same dialects and behavior in spite of them getting higher education upto secondary level.

Table-2.1: Local Language and Dialect

Animals		Materials	
English Name	Local Name	English Name	Local Name
Bullock	Rad	Water	Ti
Cow	Hooj	Milk	Khirang
Calf	Shakrus	Ghee	Mar
Hiefer	Shakru	Wheat	Jod
Sheep	Khas	Tea	Chah
Ram	BhootKaur	Butter Milk	Bhot
Goat	Bakar	Meal	Jatam
He-Goat	Salus	Fuel wood	Seeng
Lamb	Khach	Shoes	Khumba
Kid	Mach		
Certain terms of reference		Miscellaneous terms	
Male Child	Trees	Trees	Miting
Female Child	Death	Death	Seeg
Young Boy	Marriage	Marriage	BiyangSatak
Young Girl	Literate	Literate	Padhink
Old Men	Cooking	Cooking	Odosatak
Old Women			
Member Panchayat	I/Rajja		
Architecture		Counting	
Dwelling House	Khim	One	Id
Cattleshed	Khudang	Two	Nis
Kitchen	Jamisatak	Three	Soom
Bathroom	Susitak	Four	Poo
Toilet	KhukhamVangtak	Five	Na
Wooden Box (Storage)	Semang	Six	Chou
		Seven	Sot
		Eight	Ath
		Nine	Nau
		Ten	Das

2.5 FOOD HABITS

Due to adverse climatic conditions and topography, the availability of vegetables, pulses and grains has always been difficult and inadequate, and thus the people of Malana are non-vegetarian. In earlier day's meat (mutton and chicken) was the main constituent of

people's daily diet. Now, due to the inflow of money and scarcity of animal products the food habits are changing, i.e., Malanis are shifting toward vegetarian diet and easily available precooked food products. It is well established fact that inflow of money by any means affect the living habits and this is quite visible in Malana village. The village has 13 shops; out of which 5 are big multipurpose stores providing all types of soft drinks and other processed food products from all known brands (Image. 2.4). Almost all Malana women, particularly younger ones, consume a notable quantity of soft drinks per day. Regarding food grains, earlier, staple food was millets and now, other products like refined quality rice, maize, wheat and potatoes constitute main items of daily diet. Locally produced pulse i.e., rajmash and beans alongwith vegetables supplements are the daily diet of Malanis. Red Meat, honey, sugar and ghee are also consumed by them. The milk of goat is widely consumed along-with cow milk. With the opening of 13 riverside and hillside restaurant huts, the consumption of tea, coffee and fast food by Malanis has been increased. Basically these restaurant huts in the Malana territory are opened for tourist's purpose but local people are also enjoying the facilities.



Image-2.4: Multipurpose shopping store in Malana

2.6 RELIGION & SOCIETY

Malanis have strong social and cultural systems. Religion and culture of the village are interestingly unique and have been attracting scholars continuously. Equally interesting is the fact that the Malanis have been able to preserve their religion and culture through their strong frame work of social and cultural regulatory authorities and institutions. Younger generations are quite fanatic in observing the sanctions of Devta Committee, and the present chapter presents the special features of Malanis culture and social systems.

2.6.1 RELIGION AND CASTE SYSTEM

The inhabitants of Malana are followers of Hindu religion, but no Hindu gods which are traditionally worshipped in the adjoining areas of Kullu district are worshipped here. The deity worshipped here is Jamlu devta. The people are orthodox by nature and conservative in their outlook. Though the interventions of State High Court have resulted in abandoning some practices, such as animal sacrifice, the community still strongly believes in such practices. The caste system in Malana, though differs from that of Kullu region, is a complex social system that divides the village territorially into two areas of habitations: Dhara Behr and Sara Behr. The later is more conservative and objected the outsider's attempts to reside in the village.⁴⁰

The population is divided into two castes namely Rajput and non-Rajput (or schedule caste). With the exception of five families (three weavers (Julaha) and two blacksmiths), all families belong to rajput caste. All the religious ceremonies are performed by Rajput members themselves, in deviation from the typical Hindu religion system which is brahmanic in order and priesthood is in the hands of Brahmins. Untouchability is in practice among the Rajputs vis-à-vis scheduled castes, which is not a usual feature among the hill tribes. Even the young generation is marked by this practice. Nevertheless, the relation between Rajputs and scheduled castes remained very cordial. The village has a paying guest house owned by scheduled caste family since 1992. During 2007, the State Government declared entire Malana population under Other Backward Class (OBC), enabling them to get benefits and privileges available.

2.6.2 FAMILY SYSTEM

Joint family system is prevalent in Malana. All members of a family, i.e., mother, father, brother, uncle, sons and nephews generally live together under the same roof and jointly own the property. However, there is a unique family system in Malana, wherein, old aged parents live alone making single member family unit. During the survey, it was noticed that this system is continuing. Nuclear family system is found to be becoming popular as the younger generations preferring to live separately. Number of families increased from 170 in 1991 to 317 in 2017. High dependency on Public Distribution System (PDS) was also quoted as one of the factor to promote nuclear families and according to Village Pradhan, the number of ration cards may increase to more than 415 by next year.

⁴⁰ Rosser, C., 'A "Hermit" village in Kullu', In India's villages, edited by M.N. Srinivas, Asia Publishing, New Delhi, 1955, pp. 77-89.

2.6.3 MARRIAGE

In Malana, marriages are solemnized in a simple way with the parents of bridegroom approaching the bride's parents for marriage settlement. The parents of both sides decide the date and time of marriage, preferably in the month of August or September. The dowry or gifts from bride includes 'Teli' made of gold which is worn on the nostril. Normally, the grooms family and friends arrives at the bride's house in the evening and return at night with the help of fire torches. No puja or rituals are performed before leaving for husband's house. The girl touches the feet of her near and dear ones. In return they give money to her according to their financial status. The girl keeps this money with her parent. After one year of marriage, husband gives some amount of money to his wife according to his capacity and the same is deposited with the parents of the wife. This amount is considered as 'mehar'.

Divorce system is very simple; a man can divorce his wife without paying any cost except losing the mehar which he has deposited with the girl's parents. The girls are free to desert their husbands without any cost. However, if she wants to remarry, the new bridegroom is bound to pay the mehar amount to the ex-husband. The change of wives is socially permitted in the Malanis society. During 1990-91 some cases of unmarried mothers came up and people of Malana were accepting of this. Presently, with the exposure to the outside world and customs, people feel awkward to accept these facts. Inter-region marriages, i.e. marriage with non-Malanis are forbidden in Malana. Since 1992, no inter region marriage has taken place, with an exception of a harijan girl who was married to a government doctor posted in the Ayurvedic Dispensary of Malana. Also, there is a Malana family with a Nepali wedded to its daughter.

2.6.4 BIRTH AND DEATH CEREMONIES

The birth of a male child is regarded essential for the furtherance of the family name. When a male child is born, people celebrate it by feasting, dancing and even drinking despite it being banned by local Devta Committee.

On someones demise, the dead body is disposed off by cremation on the banks of Nalahs. After cremation, people take bath at confluence of rivers. Close relatives of the dead, shave their hair and spend night in the village temple where they are served with a meal.

2.6.5 FAIRS AND FESTIVALS

The main sources of recreation for Malanis are fairs, festivals and community dances. Generally, all such festivals are associated with some ceremonial function of Gods. In Malana, the following fairs and festivals are held every year;

1. Malana Shauni

It is held on the day of 'Bhadosagant', i.e., 15th August and is the main festival of Malanis.

2. Phagli

Two types of phaglis are celebrated in Malana. A "Devi PancharisPhagli" is celebrated in the month of 'Chaitra' (April) on some fixed day. Another phagli is of Jamlu Devta which is held in the month of Phalgun, (March).

3. KapuSaze Fair

It is held during 'Sagant of Jyasth' (May) month.

4. An anonymous fair

It is held during 'Sagant of Ashwin; (June) month.

At the time of fairs and festivals, the emblems of 'Jamlu Devta', viz. golden and silver horses, deer, narsingha, dhol and naggara are brought out to the ceremonial place. The people participate in folkdance, called Nattis, on all such occasions. In these dance performances, men wear a type of shirt called chola and a cap. Numbers of Devta from other parts of the region also visit the holy place of 'Jamlu Devta'. However, 'Jamlu Devta' of Malana does not visit any other place and remains at Malana, and this practice is continuing since the beginning.

2.6.6 SOCIAL SANCTIONS

By and large, Malanis are disciplined and strictly observe the social sanctions imposed by their elders in the name of local deity, i.e., 'Jamlu Devta'. Viewing the danger of increasing trend of liquor consumption, the Devta Committee imposed a complete ban on drinking liquor by any inhabitant of Malana in 1986. Liquor consumption was made a punishable offence. If any Malanis is found guilty of consuming liquor, he is fined Rs.500. If any villager or outsider is found selling liquor, he is fined Rs.1100 per offence. Other than liquor, another monetary punishment includes a fine of Rs.3,500 per offence if any non-Malanis touches or tries to enter the inner premises of holy place (temple) of 'Jamlu Devta'. If any scheduled caste person is found to be living in the village, he is fined Rs.1100/- and is ordered to leave the village immediately. Even the schedule

village. During 1990-91 several non- timber forest products around the village were recorded, for instance, Dhoop, Karu, Patish, Dorighash (Anjwas), Chora and Guchhis(mushrooms) and wild vegetables, contributing a significant share in Malanis family income.⁴¹ But now these products have little importance in Malanis family income. Villagers used to extract these products from the wild, and sell them to the village traders or in the nearby markets. According to an estimate, about Rs.1812/annum/family was the income from the sale of minor forest products.⁴² Presently the entire population of Malana is spending 2-3 months annually in the collection of cannabis (Bhang), a minor forest product from the wild. The by-product of the product is burnt and seeds dried on the roof tops.

The commercial cultivation of cannabis was adopted by the people of Malana at some point in the late 1970's. The climate of the southern foothills of the Himalayas is well suited for growing cannabis and the produce in the Pin Parvati valley is particularly of high quality. According to an anecdote, an Italian by the name of *Glenu*⁴³, who took up residence⁴⁴ in the village, taught the Malanis how to make charas using the 'hand rubbed' technique to draw resin from the plant by massaging each flowering leaf between the palm and fingers. Some quantity of this crop is sold directly to the tourists and some is exported to other parts of India and abroad.

The main product i.e. hashish is separated from the plants and it fetches good price. Number of foreigners and Indians visit Malana as tourists and hashish remains main attraction of the village. According to conservative estimate, the Malana people receive significant income, in lakhs, annually from the sale of hashish. In 1955 a batch of Malana cream entered into Amsterdam's prestigious cannabis cup, where it was adjudged to be one of the two finest hashish smokes in the world.⁴⁵

Fauna of this region consists of karath(wild goat),ghorael (goral), deer, tangrol (himalayanibex), beena (musakdeer), maitu (barhel), ghahi (black bear), birog (panther), shahi (parcupine) etc. The main birds of the region are monal (monal pheasant), kalesha

⁴¹ D.V. Singh and B.K. Sikka, Malana An Oldest Democracy Sustainability Issues in Village Economy (Himachal Pradesh), Agro-Economic Research Centre, H.P. University, Shimla-5 (Mimeo), 1992.

⁴² D.V. Singh, Agricultural Support Land: Perspectives and Issue in Himachal Pradesh, Status Paper, ICIMOD, Kathmandu, Nepal, 1992.

⁴³ 'Glenu' has offered his own account of introduction of cannabis cultivation to Malana, Glenu, 1998. A drug trade-arrested near Malana/706920/Accused 2nd August 2015.

⁴⁴ The Malani People's rejection of outside authority and long tradition of providing sanctuary to criminal explains why foreigners such as 'Glenu' was able to remain undetected in Malana for such a long period.

⁴⁵ <http://www.thetalk.com/cannabis-forum/showthread.php.?3987-high-times-cannabis-cup-winners-1988-2007>.

(white-crested kaligi pheasant), chakar (partridge), kalatitar (black partridge) and Jujurana (satyr tragopan).

2.9 ROAD AND COMMUNICATIONS

One of the common approach to Malana is a moderately difficult track over the Chanderkhani pass which takes one day climb from the nearest motorable town of Naggar. This approach is only possible when the snow has melted and the pass is clear. Earlier the most common approach to Malana was trekking path alongwith Malana Nalah, locally called ChowkiNalah. The way (pagdandi) from Jari to Malana passes from three cantilever bridges across the Malana Nalah and Parvati River. The entire footpath was very narrow having steep gradients. It is quite difficult and takes about 6-7 hours for a new visitor with every possibility of losing the way. The village is located in such a unique situation that it is not visible from other places. The important approaches to Malana were and at present are:

- i. Naggar – Rumsu – Chanderkhani – Malana –track route (18 kms).
- ii. Jana – Chanderkhani – Malana –track route (17 kms).
- iii. Jari – Malana (opposite Malana Nalah) – 15 kms Kuchha&Pucca road (8kms pucca road + 7 Kms Kuchha road)
- iv. Manikaran – Rasol – Malana– track route (16 kms).
- v. Malana-Bhuntar – 52 Kms Kuchha and Pucca road (7 kms Kuchha road +45 kms pucca road)

The road connecting Malana with other regions was constructed in 2007. A Himachal Road Transport Corporation (HRTC) bus is operating on this road since 2016 between Kullu and Malana. Though the road is connecting Malana territory with other places, the main (old) village Malana is still 3 kms away from the bus stop or road connecting point and so, to approach Malana village one has to travel 3 kms one way. For transportation of goods and other material, a rope-way was installed during the year 2015 between old village Malana and road point. This system has been helping Malanis to carry all types of necessary materials including the building materials. Mostly the fare is decided by the weight and volume of the material. The fare is about Rs. 80 for per quintal material, inclusive of loading and unloading charges.



Image-2.6: Mobile Satellite Towers in Malana

The village is well connected with telecommunication systems. A branch post office is working with the help of local literate persons. The same system was also working in 1990-91. To boost the development of communication system two Mobile Satellite Towers of the telecommunication companies namely Vodafone and Airtel were installed during 1996 (Image2.6). During the year 2017, JIO Company has also created provision with Airtel Satellite. Presently, these three mobile companies are operating in the village. Almost everyone in the village possessed advanced smart mobile phones.

CHAPTER - III

SUSTAINABILITIES ISSUES

INTRODUCTION

Hilly regions are characterized by the low density of population, small land holdings, weak market infrastructure, traditional production practices and high dependence on natural resources. More than 90 per cent population of hills earns their livelihood from farming. This is more in tribal areas, where the movement of labour force from farming to urban oriented activities (industrial production) is negligible. All these factors affect the economy of hill people under some mountain specificities which separate the hilly region from other areas.⁴⁶

3.1 MOUNTAIN SPECIFICITIES

The developmental possibilities of Malana are constrained by its mountain specifications. There are six important mountain specificities as inaccessibility, fragility, marginality, diversity, niche, and human adaptation mechanism.

3.1.1 INACCESSIBILITY

Inaccessibility is the most common feature in mountain areas and Malana's isolation has this factor behind it. Its concrete manifestations are isolation, poor communication, and limited mobility. Besides the dominant physical dimension, it has socio-cultural and economic dimensions, which are reflected by socioeconomic differentiation and inequity of access to resources, information, and opportunities. Inaccessibility exaggerates other conditions such as marginality and diversity, as mentioned below.

3.1.2 FRAGILITY

Mountain areas are known for their fragility, due to altitude and steep slopes, in association with geologic, edaphic and biotic factors, limit the areas' capacity to withstand even a small degree of disturbance. Their vulnerability to irreversible damages, due to overuse or rapid changes, extends to physical land surface, vegetative resources, and even the delicate economic life-support systems of mountain communities. Consequently, when mountain resources and environment deteriorate due to any disturbance, they do so rapidly. In most cases, the damage is irreversible or reversible only over a long period. This factor is largely responsible for the vicious circle of 'poverty-resource degradation-poverty' in the

⁴⁶ N.S. Jodhaet. al, Sustainable Mountain Agriculture, Perspectives and Issues, Vol. I (edited), ICIMOD, Oxford and IBH Publishing Co. Ltd., New Delhi, 1992.

fragile ecological zones of mountain regions. Malana needs specific attention to preserve its fragile eco-system.

3.1.3 MARGINALITY

‘Marginal’ entity (in any context) refers to that which counts the least in reference to the ‘mainstream’ situation. This marginality has kept Malana far behind in development. This may apply to physical and biological resources or conditions as well as to people and their systems of sustenance. The basic factors, contributing to such a status, in reference to any area or community, are remoteness and physical isolation, fragile and low-productivity resources, and several man-made handicaps which prevent participation in the ‘mainstream’ pattern of activities. The above basic factors also lead to secondary patterns of relationship between ‘mainstream’ and ‘marginal’ entities. They are reflected through neglect and exploitation of the latter by the former. Mountain regions being marginal areas share the above attributes of marginal entities and suffer the consequences of such a status in different ways.

3.1.4 DIVERSITY OR HETEROGENEITY

In their natural state, some degree of heterogeneity is characteristic of all types of habitats. Soil-types change every 20 miles, as they say. However, in mountain areas, one finds immense variations among and within eco-zones, even within short distances. This extreme degree of heterogeneity is a function of the interactions of different factors such as elevation, altitude, geologic and edaphic conditions, steepness and orientation of slopes, wind and precipitation, mountain mass, and relief of terrain. The biological adaptations (e.g. naturally suited plant types) and socioeconomic responses (e.g. cultural patterns, structure of economic activities, etc.) to the above diversities, also acquire a measure of heterogeneity of their own. The ‘diversity’ or ‘heterogeneity’ phenomenon applies to all the mountain characteristics discussed here. Malana’s uniqueness in habitat and natural resources is due to this feature.

3.1.5 NICHE OR COMPARATIVE ADVANTAGE

Owing to their specific environmental and resource-related features, mountains provide a ‘niche’ for specific activities or products. At the operational level, mountains may have comparative advantages over the plains for certain activities. Examples may include: a valley serving as a specific habitat for special medicinal plants, mountains as ideal places for certain economic activities (e.g. electronics factories) which require a relatively pollution free and cool environment, as a source of unique products (e.g. some fruits, flowers, and minerals), and hydro-power production. In practice, a ‘niche’ or comparative

advantage may remain dormant unless circumstances are created to harness it. On the other hand, if certain developments lead to the elimination of the 'exclusiveness' characterizing a situation or resource base, the comparative advantage may cease to exist. Production of special hill crops (e.g. flowers, mushrooms, and medicinal plants) in the plains, by creating artificial environments or through research, is one such example, where the comparative advantage of the mountains is lost. However, mountains, owing to their heterogeneity, have several, often narrow, but specific niches which are harnessed by local communities through their diversified activities, but with due care.

Malana's world fame for its reportedly high quality marijuana and its glamorous existence as a living direct democracy of the world provides this village an unmatched niche.

3.1.6 HUMAN ADAPTATION–MECHANISMS

Mountains, through their heterogeneity and diversity, even at micro-level, offer a complex of constraints and opportunities. Mountain communities, through trial and error, have evolved their own adaptation mechanisms over the generations. Accordingly, either the mountain characteristics are modified (e.g. through contour farming) to suit their needs, or activities are designed to adjust the requirements to mountain conditions (e.g. by zone-specific cropping pattern). Adaptation mechanisms or experiences are reflected through formal and informal arrangements for management of resources, diversified and interlinked activities to harness micro-niches of specific eco-zones, and effective use of upland-lowland linkages.

It should be emphasized that harnessing of 'niches' or 'comparative advantages', too, could be treated as a part of human adaptations to mountain conditions converting them into opportunities. Viewed this way, the second order mountain specificities (i.e. 'niche' and 'adaptation mechanism') have human effort as a crucial common factor. While inaccessibility, fragility, marginality, and heterogeneity, represent structural features of mountains, human adaptations and (to a greater extent) 'niche' represent operational consequences of the former. However, since the 'operational consequences; considered, are also unique features of mountain realities, we have treated them as mountain specificities.

With changes circumstances, such as increased population pressure, increased role of market forces, and side effects of public policies and programmes, a number of adaptation mechanisms are losing their feasibility and efficacy. However, understanding of their rationale can help in evolving new institutional and technological options that are more relevant to mountain realities.

3.2 MOUNTAIN SPECIFICITIES IN MALANA VILLAGE

The specificities have multiple dimensions, namely; physical, biological and socio-economic. All these have direct bearing on the sustainability of its economy. In spite of typical mountain specification, the socio-economic system of Malana village is entirely different to other hilly areas. In Malana more than 90 percent population earned their livelihood from minor forest/support land products. Farming is least of their interest. However, they are still rearing livestock mainly sheep and goats. At present, every family is rearing sheep and goats and of late, few villagers have started rearing cows as well.

The numbers of studies conducted so far on hills economy reveal that tribal and hill people are mainly dependent on natural resources (common pool resources). Out of the total number and amount of resources available to the hill people, public land contributes to a major share in the household economy. Public land mainly includes pasture and forest lands which are not cultivated for legal reasons. In hills, public land provides livelihood to the community in the form of food, fodder, fuel, timber and herbs, same is the case with village Malana. From the economic point of view, public land is complementing number of enterprises and helping Malana economy in various ways.

During 1991 in Malana, the gains from common pool land accounted for 41 percent of total family income while the same at the state level were 37 percent. The average household in hills was receiving benefits upto Rs.8,755 per annum from public land in the form of fodder, fuel wood and timber. Tribal families were receiving higher returns of Rs.10594 per annum, which includes the sale of herbs and medicinal plants. In Malana the average household was generating marketed surplus from support land to the worth of Rs.1814 per annum.⁴⁷

The present survey showed that Malanis are getting significant amount of income annually from the sale of resins from cannabis herb collected from public land. Every member of family spends at least 60 man-days in the collection of products from public land mainly in the forest area. This income helps Malanis in improving in their living standards. Keeping in view the high dependence of hill people on natural resources, it becomes a prime concern of people in these areas to maintain the productive capacity of natural resources i.e. land, air, water, vegetation and wild life.

3.2.1 SOCIO-ECONOMIC AND ECOLOGICAL SUSTAINABILITY OF MALANA VILLAGE

⁴⁷ D.V. Singh et.al, Production and Marketing of Minor Forest Products: A Case Study in Himachal Pradesh, Indian Journal of Agricultural Marketing, Conference Number, 1992.

Given in the following table (Table 3.1) are certain negative aspects of mountain location of the village with specific reference to changes evident from certain negative indicators of mountain specificities.

Table-3.1: Negative Change as Indicators of Un-sustainability of Mountain System in Malana

Indicators	Effects	Causes
A.RESOURC E BASE	i. Increased land slides	-Construction of roads and paths -Excessive interference in natural land base due to increase in population.
	ii. Soil erosion of high degree	-Lack of proper bunding/construction of retaining walls etc. Due to little interest in farming they are not investing in the form of material input and labour employed for the purpose.
	iii. Encroachment of public land	-Scarcity of arable land due to population pressure. Availability reduced from 0.19 ha.to 0.10ha. per farm.
		-Because of isolated area, Govt. laws and rules for land encroachment have minimal effect.
iv. Changes in plant diversity	Excessive or unsustainable extraction of herbs and shrubs	
	Excessive grazing	
B. PRODUCTI ON FLOWS	i. Relatively low yields of crops and livestock	-Tillage operations are done only by human labour. Animal power is not used for crop cultivation by any farmer.
		-Use of chemical fertilizers and plant protection material is negligible.
		-Because of seasonal migration of sheep & goats Farm Yard Manure availability is not sufficient
		-Due to little care for crop production least care for preparation of compost or green manure.
		-Almost negligible stall feeding of animals they have least care for required quantity of fodder to cattle.
		-Least care for improvement of local breed or introduction of new breeds.
	ii. No change in input use pattern	-Traditional way of crop cultivation are still persistent.
iii. Increased time in fuel and fodder collection	-Depletion of forest and grass land in nearby vicinity because of unrestricted use of resources.	
	-Distance travelled to collect fuel and	

		fodder has increased by many folds and consequently fetching/collection time has also increased significantly.
	iv. Water Grinding mill (Gharat) abandoned	-With the installation of a private power project flow of water in Nalah has reduced significantly. -Installation of electric operated grinding mill.
	v. Compulsory seasonal migration of animals	-Reduced availability of fodder for animals in and near the village. -Risk of loss of animals due to death in snow bound area.
C.RESOURC E USE AND MANAGEM ENT PRACTICES	i. Cultivation practices	-Traditional farming system still continuing, they have little interest in making best use of arable land for crop production. -More arable land is accounted for net area sown in a crop year.
	ii. Reduced extent of inter cropping	-Shifting from mixed cropping to single high value cash crops (Cannabis)
		-Increased dependence for food items on market and Public Distribution System (PDS)
		-Least care for change in crop rotations
	iii. No change in resource management	-In spite of high pressure on arable land, lot of fertile land is devoted for the production of least care crops.
	iv. Proper cultural practices are not followed	-All the cultural practices like primary tillage, sowing and inter-culture are done by manpower only, this restrict the adequacy of cultural practices and leads to low yields.
	v. Harsh climate	-Overall difficult climatic factors also restrict the growth of crops and their yield.
vi. Extension of cultivation on public land	-Because of difficult terrain and harsh climate in the entire territory of village nobody bothers for legal laws and rules; might is right ideology prevails in the encroachment of public land.	

The table shows changes taking place under three categories of sustainability indicators: i) Natural resource base; ii) Production flows related to economic activities; iii) Resource use and management practices.

During this period, the adverse impact on soil, erosion into public land, plant diversity, has continued as it had been the case prior to 1990-91. But in totality, the adverse effect on natural resource base of soil, availability and diversity has been more pronounced. So far as production flows is concerned, very

little change in the mode of farming, farm input use and time taken in transferring fuel and fodder and loss of livestock is noticed during this period. Finally, in the resource use and management practices, however, there is a discernible shift in cropping pattern from the traditional coarse grains to barley and maize; and finally to pulses and rajmash; and engagement of natural and human resources in common pool resource activities of collecting cannabis for its narcotic substance, seeds for food and the stubs for fiber; and livestock activities of rearing sheep and goats for wool and meat.

3.2.2 POTENTIAL ATTRIBUTES AS INDICATORS OF SUSTAINABILITY OF THE MOUNTAIN SYSTEM IN MALANA HILLS

The potential attributes as indicators of sustainability of the mountain system in Malana territory are presented in Table 3.2.

Table-3.2: Positive Attributes as Indicators of Sustainability of Mountain System in Malana

Indicators	Potential	Factors Responsible
A.RESOURCE BASE	i. Plenty of land available	-Because of orthodox nature of people of Malana territory, inflow of population is nil
	ii. Adequate natural resource base	-Topographically and climatically the entire area has lots of resources i.e. water, land and natural vegetation
	iii. High land fertility	-The soil is sandy-loam and rich in humus.
		-All types of crops mainly of high value, low volume crops can be grown (e.g. Cannabis, Hop, Karu, Patish, Dorighass)
		-Farmers are shifting towards growing of such crops which gives high returns on a small land base.
iv. Adequate Manpower	-Majority of farmers are least bothered to introduce new crops or improve traditional crops.	
B.PRODUCTION FLOWS	i. High potential for diversification	-High value low volume crops can be grown easily medicinal herbs and shrubs, vegetable seeds etc.
		-The entire area is famous for the production of good quality shrubs, e.g., Cannabis and Nagchhatri)
		-These crops already exist in wild form in the area.
		-Good quality breeds of sheep and goats have vast potential for development in this area
	ii. Scope for harnessing natural resources	Different type of medicinal herbs plants and shrubs like dhoop, patish, karu, dorighassetc are naturally grown in public land (support land)
	iii. Advantage of regional specialization	-The entire territory of Malana is quite famous for the production of good quality shrubs as the environment is pollution free and conducive for the purpose.

		-Soil and climatic conditions are most suitable for the production of medicinal plants.
C.RESOURCE USE AND MANAGEMENT PRACTICES	i. Stereo type of crop rotation followed	-Same type of crop rotation is followed on each segment of land
		-Every year lot of land is left uncultivated for their own whims and other factors.
		-Some sort of Jhum (shifting) cultivation is followed:
	ii. Strong social sanctions	-Earlier the entire village was administered by strong social sanctions by Devta Committee. Now people of the village are accepting State Govt. laws and rules.
		-Two decades earlier, the village having its own judiciary system, i.e., lower court, upper court, etc. Now govt. legal system and legal court, etc., taking control.
		-All types of decisions regarding use of common resources, land dispute and other matters are still decided by appropriate authorities inside the village.
	iii. High amount of disposable income generated	-Each family earns an average income in lakhs per annum by sale of herbs and other medicinal plants collected from the support land or public land
	iv. Well knit social institutions	-Everybody is bound to obey the social sanctions of the established institution, i.e., Devta Committee. Particularly young generation is too whimsical about social sanctions.
	v. Electrification of village	-This has increased the use of various electric operated equipments.
	vi. Transportation	-With the development of Kachha road/link road the drudgery of women for transporting of household material has completely reduced.
-With the introduction of transport facility movement of Malanis to other places has increased many fold.		
-Now animal power (Horse, Mules & Ponies) has become common in the village for transportation of material.		
Others	-The living standard of Malanis has improved a lot.	
	-About 90 percent of dwelling houses of are up to the mark.	

When the changes taking place in the positive attributes of social, economic and environmental specificities of this mountain human habitat are examined, it is found that despite robust resource base of land, water and forests, and immense possibilities of diversification of farming; tapping of common pool land resources of public land and forests, harnessing natural resources of herbs, shrubs and medicinal plants—no development efforts worth the name have taken place to utilize the potential. This is due to complete absence of a development strategy for the upliftment and prosperity of this glamorous remote village of Himachal Pradesh. There is a need for modernizing agriculture, popularizing the fast growing sheep and goat rearing activity, encouraging further the popularity of cash crops, providing all-season road connectivity right up to the village. For all this to happen there is a strong case for using the village's unique system of governance, social organization, cultural life, spiritual ways, architectural style and way of living—for showcasing the village as a tourism village of the district. This necessitates an effort on the part of the State Government to effect a change in the primitive outlook of the villagers through highly credible civil society organizations.

3.3 SUMMING UP

There is a continuity of adverse effect on natural resource base of soil, availability of common pool resources, diversity of crops and discernible change in farming in terms of shift from traditional crops to high-value crops, livestock activities of sheep and goat rearing, and more reliance on common land resources.

On the potential attributes of sustainability, it is found that despite robust natural resource base, possibilities of diversification of farming and cashing upon the common pool land resources, very little development effort has been made to tap these resources for socio-economic development of villagers.

What is suggested is to initiate a comprehensive development plan to enable faster socio-economic changes in the village for tapping the natural resources, and make efforts for bringing dynamism in the social outlook of the villagers with the involvement of credible civil society agencies.

CHAPTER – IV

SOCIAL DYNAMICS

INTRODUCTION

An important area of concern in continuous village study aiming at understanding the changes taking place in its socio-economic and cultural milieu is to know what is happening in its demographic sphere which is reflective of development taking place in a society. In this regard, the changing features of population of Malana, along with its educational and habitat related salient features have been studied through available secondary data and the current survey. This analysis is of paramount importance as it would reflect the changes that have taken place as a result of a quarter of a century period since 1991.

4.1 DEMOGRAPHY

The demographic status reveals a change over the last two and a half decades. The total population in 1991 was 954 and the same has risen to 1969 in 2017. The annual decennial growth rate observed during that period was 3.9 percent. Between 1981- 91 the rate of growth was 2.49 percent which was higher than the state average of 1.93 percent. The village had 153 households in 1981, 170 in 1991 and 317 in 2017. Between 1991 and 2017 the male-female ratio had increased from 923 to 993 females per thousand males. The figures presented in Table 4.1 reveal that about half of the population in the age group of 15 to 60 years accounts for working force as it was in 1991 census. Below 5 years age group population accounts for 15.74 percent and between 5 to 15 years age group 29.66 percent of total population. These age groups people have shown 2 percent growth as compared to 1991 census. This reveals the overall improvement in the living standard of people and healthcare. The persons above 60 years constitute 4.47 percent of total population and this age group of population has recorded significant decline between 1991 and 2017 almost in the similar ratio as in 5-15 years' age group (Table 4.1).

Table-4.1: Demographic Profile of Village Malana

Age Group	June 1991	September 2017	Percentage Change
0-5 Yrs.			
Male	72 (14.51)	157 (15.89)	118.05
Female	71 (15.50)	153 (15.59)	115.49
Total	143 (14.99)	310 (15.74)	116.78
5-15 Yrs.			
Male	142 (28.63)	307 (31.07)	116.20
Female	122 (26.64)	277 (28.24)	127.05
Total	264 (27.67)	584 (29.66)	121.21
15-60 Yrs.			
Male	246 (49.50)	492 (49.80)	100.00
Female	236 (51.53)	495 (50.46)	109.74
Total	482 (50.52)	987 (50.13)	104.77
60 Yrs. & above			
Male	36 (7.26)	32 (3.24)	11.11
Female	29 (6.33)	56 (5.71)	93.10
Total	65 (6.81)	88 (4.47)	35.38
Population (All)			
Male	496 (100.0)	988 (100.0)	99.19
Female	458 (100.0)	981 (100.0)	114.19
Total	954 (100.0)	1969 (100.0)	106.39
Female per 1000	923	993	7.59
Total households	170	317	86.47

Source: Own field survey

Note: The figures in parenthesis are percentage of respective totals.

It was observed that the sex ratio was more unbalanced in the age group of 5-15 years than in other groups. However, in the age group of 5 years, the sex ratio has no difference. During 1991 and 2017 the sex ratio in this small group remained same. The overall change in the population of village Malana is observed to be 106.39 percent over 1991.

4.2 EDUCATIONAL STATUS

Due to climatic conditions and remoteness of the village, the spirit for the acquisition of education has not been ventured in the people of Malana. Moreover, the traditional occupation of animal rearing, orthodox and conservative outlook of the people towards life and social taboos restricted the spread of education. Education is not an important component of their life and inhabitants of the village are not availing the benefit of education in spite of the establishment of Government High School (in 2008) as well as already existing one Government

Primary School since, 1944. In spite of the presence of Government High School, importance for education was neglected in Malana and was evident during our recent field visit to Malana.

Table-4.2: Registration of Students in Government Primary School Malana

Years	Class of Education					Total Students		
	I	II	III	IV	V	Male	Female	Total
1991	6	9	2	5	10	30	2	32
1992	11	4	7	3	-	23	2	25
1993	9	9	3	5	3	24	5	29
1994	5	3	6	2	5	20	1	21
1995	-	4	2	5	2	12	1	13
1996	38	5	4	7	2	50	6	56
1997	19	16	4	3	7	41	8	49
1998	100	10	17	3	7	94	43	137
1999	3	95	9	16	2	87	38	125
2000	4	2	97	11	21	87	38	125
2001	4	3	76	14	11	71	37	108
2002	6	4	26	60	5	64	37	101
2003	9	5	6	42	6	50	18	68
2004	90	10	8	7	3	69	49	118
2005	9	85	10	11	5	69	49	118
2006	27	12	83	13	9	80	64	144
2007	33	24	12	49	15	85	47	132
2008	29	29	24	32	46	87	73	160
2009	49	37	25	20	13	90	73	163
2010	43	44	33	22	23	88	77	165
2011	66	45	43	35	24	107	106	213
2012	45	61	44	45	33	118	110	228
2013	44	50	63	47	42	130	116	246
2014	41	38	46	56	44	101	124	225
2015	24	40	36	46	56	92	110	202
2016	16	25	38	35	42	72	84	156
2017	42	20	28	44	38	88	84	172
CAGR	7%	3%	10%	8%	5%	4%	15%	6%

Source: Government Primary School Malana (Kullu).

At the time of our visit in October 2017, both Government High School and the Primary School were found without students. According to the teachers, no student turn up to attend the school from 15th September to 15th November every year, i.e., almost 2 months. The Government High School is well equipped with information communication technology lab (ICT) and smart class facilities with 7 teachers for different subjects. The primary School has three teachers. Midday meal facility was extended to both the schools with one water carrier

available in each. The class-wise registration of students is given in Tables 4.2 and 4.3. In view of the above situation, measures should be taken to motivate Malanis to promote basic education among young children. And measures should be taken to prevent the involvement of young children in legal or illegal activities, such as collection of banned cannabis, or any products, at the cost of their schooling.

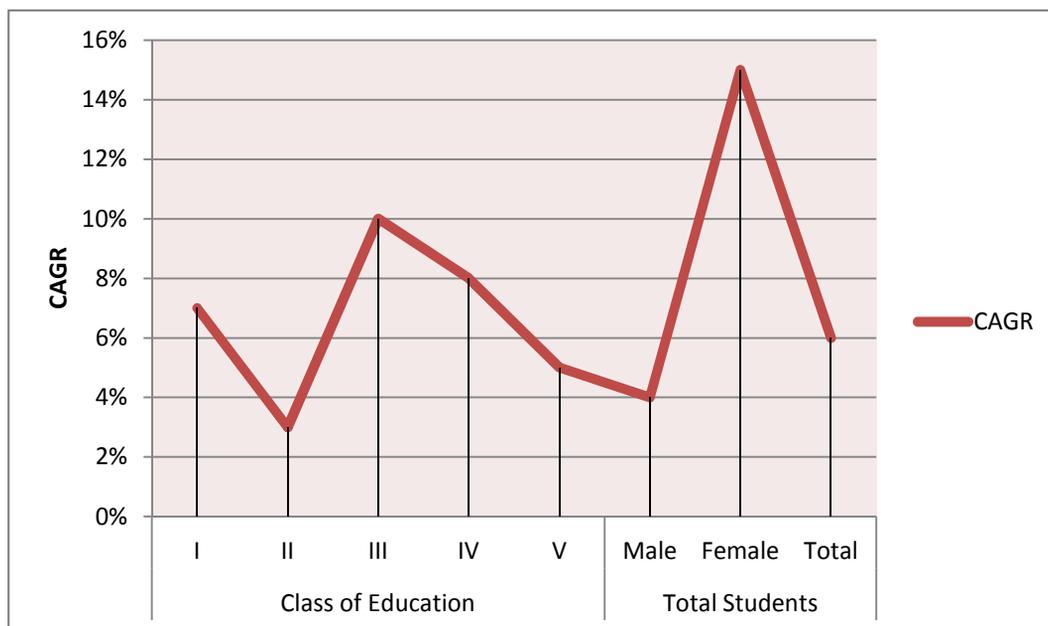


Figure-4.1: Growth Rate in Registration of Students in Government Primary School

Table-4.3: Registration of Students in Government High School

Years	10 th class (Matric)		
	Boys	Girls	Total
2009-10	1	1	2
2010-11	3	1	4
2011-12	3	2	5
2012-13	15	4	19
2013-14	13	10	23
2014-15	9	0	9
2015-16	12	6	18
2016-17	13	9	22
CAGR	38%	32%	47%

Source: Government High School Malana (Kullu).

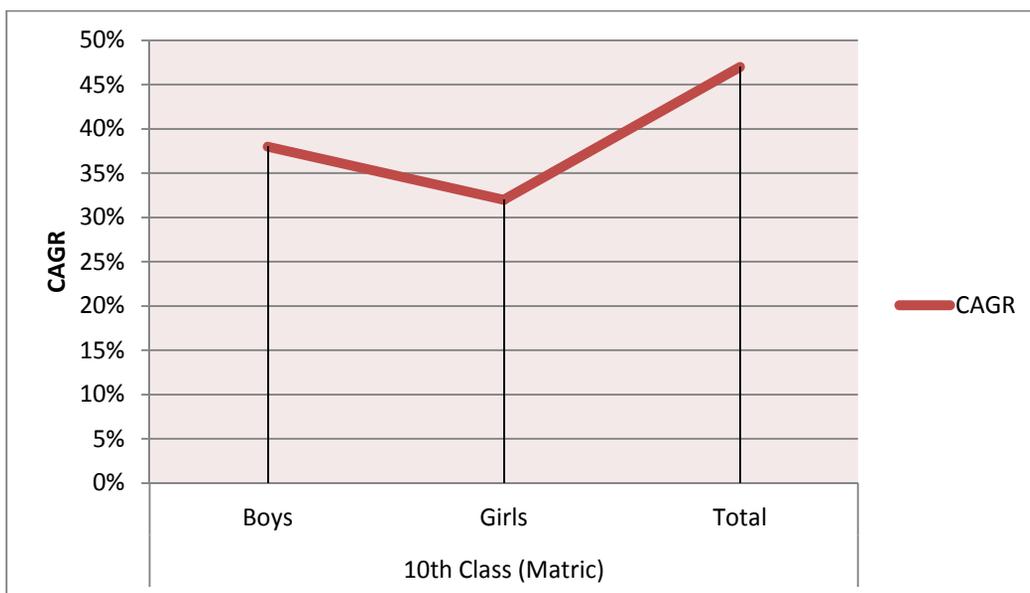


Figure-4.2: Growth Rate in Registration of Students in Government High School

4.3 LITERACY RATE IN MALANA

The literacy among Malanis is presented in Table 4.4. The figures presented in the table clearly show a significant growth. Though It has increased from 6 percent in 1991 to 49.25 percent in 2017, the non-school going children between the age group of 5 to 15 years constitute a large share as about 64 percent of children in that age group. The share of matriculate persons is 5.59 percent only while secondary educated persons are 2.89

percent of total population. Though the percentage of matriculate and secondary educated persons is not so high, the female education has improved remarkably as compared to 25 years back when it was about nil.

Table- 4.4: Literacy in Malana Village

Education Standard	1991			2017			Percent change
	Male	Female	Total	Male	Female	Total	
Knows reading & writing	16	-	16				
Primary	30	2	32	203	178	381	1090.62
Middle	6	-	6	158	111	269	4383.33
Matric	3	-	3	60	50	110	3566.66
Secondary(+2)	-	-	-	34	23	57	-
Non-School going 5-15 yrs.	101	120	221	198	179	377	70.59
Children Attending School 5-15 yrs (%)	21.1	1.6	12.1	36.94	33.45	35.20	190.91
Literacy (%)	11.1	0.4	6.0	54.75	43.72	49.25	720.83
Total Population	496	458	954	988	981	1969	106.39

Source: Own field survey

Note: Literacy % workout by excluding 0-5 years of kids from total population.

4.4 SEASONAL MIGRATION

During winters, entire Malana region remains covered under snow for 4 to 5 months, making it necessary for them to migrate along with their herds to warmer areas. Under forest and common property rights, Malana shepherds have grazing rights on the far-away pastures of Sunni region of Shimla and Mandi districts and Dhami and Ghanahatti areas of Shimla district. Migration starts before the onset of winter season and they remain there till the snow starts melting.

A look at the mix of occupations that Malanis carry out would reveal that they are farming people with agriculture and agriculture related activities, with no other openings for earning their living. It appears except this seasonal migration to far-away places outside their village to meet the needs of their animals, they have no occupation to engage their manpower away from the village. It would be interesting to bring it to record that the only Malanis exception in this matter was one who after becoming the first matriculate of the village joined in state Forest Department as a Forest Guard. During the recent survey, it has been noticed that the same person is promoted as Block Officer in forest department. One more person as JBT teacher from Malana is serving outside the area.

4.5 HOUSING

Traditionally, the houses in Malana were built of stone and wood. The construction material used constituted timber, logs and hammer-dressed stones. A fire accident in year 2007 left a large portion of main Malana village gutted and some portion of Jamlu Devta temple was damaged. After the tragedy, Malanis started construction of new houses using RCC material. Now, about 73 percent houses of Malana are of modern type multi-storyed RCC structures. Most of the new houses have bathroom, toilet and kitchen attached with the dwelling rooms.

During 1992 some families had constructed their houses using galvanized iron sheets (G.I.) for roofing. No mud or plasters were used on outer walls. However, the inner walls of the houses were plastered with mud. For the construction of roof, thick big size stone, slates and timber logs were used. Before construction of a house, the wooden frame was prepared and stones were fixed systematically. Generally, a house comprised of two or three stories in which the ground floor was used as cattle shed while the middle storey was used for the storage of food grains and other household articles which was collectively known as kuthhar. The upper storey was used for dwelling purposes. Windows and ventilators are not provided in lower storeys of houses. The upper storeys of houses had balcony on three sides with adequate windows and ventilators.

The floors of the houses which were used for living purposes were made up of wood while that of cattle shed and store were made up of stones. The small size doors were provided in the houses. No separate kitchen and bathroom are provided in the semi pucca houses which existed before 2007, but they became norm in houses constructed afterwards.

Last decade has seen significant growth in construction of pucca houses/buildings. Due to fire breakout in 2007, each household in Malana was provided Rs. 80,000/- for the construction of new house by the state government as a relief to those families whose houses were burnt. In 1981, there were 150 houses and no one was having farm house outside the main village.⁴⁸ By 1991, household number had increased to 170 and houses/buildings owned by them were 353 and 153 houses were constructed outside the main village. There were

⁴⁸ Socio-Economic Survey of Village Malana , Department of Economics and Statistics, Himachal Pradesh, Shimla, 1981.

238 houses with roofs covered with stone slate and 114 with the wooden sleeper.⁴⁹ There was also a house with roof of G.I. sheet.

In the last decade, the numbers of houses have increased to 944. Out of these houses, about 73 percent are pucca houses and the remaining 27 percent are semi pucca (Table 4.5). The numbers of farm houses have also increased from 153 in 1991 to 554 in 2017. House having slate and wooden roofs decreased significantly during last 25 years. However, the roof of Tin and G.I. sheets have increased tremendously. Earlier only one house was having roof of G.I. sheet and at present, the number has increased to 638.

Malanis usually sleep on the wooden floor. During 1991, there were only two cots owned by two villagers. At present number of families are having wooden box type cots. However, the practices of sleeping on wooden or cement floor and on woolen and cotton mats still continue. For bedding, the woolenpattus are generally used which are woven by the villagers themselves. In addition, majority of people are also using synthetic mattresses and blankets and cotton/synthetic quilts and bed sheets.

Table-4.5: Status of Housing and Buildings in Malana

Particulars	June 1991	Sept 2017	Percentage change
No. of households	170	317	86.47
No. of houses			
Pucca	-	688	-
Semi Pucca	353	256	27.48
Kuchha	-	-	-
Total	353	944*	167.42
Farm house			
Outside the village	153	-	-
House of one room with cattle room	201	280	39.30
More than one room dwelling	152	264	336.84
House having roofs of:			
Slate	238	194	18.49
Wooden	114	112	1.75
Tin/G.I. sheets	1	638	63.700
Modern general store(shop)	-	13*	-
River/Nalah and Hill side Huts (coffee/Tee Restaurant /Picnic Huts)	-	11	-

⁴⁹ D.V. Singh and B.K. Sikka, Malana: An Oldest Democracy Sustainability Issues in Village Economy (Himachal Pradesh), Agro-Economic Research Centre, H.P. University, Shimla-5 (Mimeo), 1992.

Source: Own field survey

Note: Dwelling house plus cattle shed and storage shed.

** =Part of dwelling house*

4.6 SUMMING UP

The annual growth rate in population during 1991 to 2017 was 3.9 and there is a continual increase in the number of households. Majority of houses in Malana village are pucca and well furnished. Student's enrolments in Government School show an increasing tendency during 1991-2017. The sex ratio and literacy rates have also improved, leading to improved living standards

CHAPTER –V

PUBLIC AND SOCIAL INSTITUTIONS

INTRODUCTION

The role of institutional development is crucial in deciding the pace and nature of socio-economic development of rural areas. Therefore, in this chapter, this aspect has been probed in detail on the basis of secondary data available with the government offices, and the field visit of all the important public institutions, and interaction with the stakeholders on both service provider offices and the beneficiaries.

5.1 PUBLIC INSTITUTION AND FACILITIES

Since last two decades, the people of Malana have been enjoying the benefits of almost all types of public amenities, including road transport, which has been provided in 2007. The state government has been extending following facilities to the inhabitants of Malana:

5.1.1 DRINKING WATER SUPPLY SCHEME

The village has plenty of water available in perennial gravity channels. The water supply scheme was launched in 1986 by the state Department of Irrigation and Public Health (IPH) and the same is operational in the village today. The IPH department is maintaining the drinking water supply scheme and has installed seven public water tapes for the villagers. Under the water supply scheme, number of taps is provided for the small cluster of houses. With the construction of new RCC buildings, individual water connections have also been installed, in the new houses by Malanis themselves. Before the arrival of this scheme, the main source of water was natural springs flowing through the village and still, the same source is providing water for domestic purposes. IPH scheme is only available in one hamlet (main village) of the Malana village. Other hamlets are dependent on natural sources for water. During the survey, it was observed that the water supply scheme was functioning properly. Villagers are also involved for the timely and proper repair of the system. However, every year due to heavy snow, the system gets damaged and undergoes regular repairs.

5.1.2 ELECTRIFICATION

The village was electrified in 1988 under the State Government rural electrification drive. The entire Malana territory is electrified with the sole exception of Ward No. 4. The Electricity Department has installed 55 street lights in the village and all are functioning properly. During 1991, there were only 50

houses with electricity connections. With power supply, number of power flour mills started functioning in the village. Earlier only two power flour mills were in operation in the village. Solar lighting system was also installed way back in 1985, but due to inadequate care and repair, it failed, in spite of good potential for solar lighting.

Interestingly, Ward No 4 is deprived of lighting due to an uncanny reason. Of the 5 wards of Malana village, this is the only ward without electrification because electrification is not allowed by Local Devta Committee and community has adhered to committee's decision.

5.1.3 MEDICAL AND PUBLIC HEALTH

In village Malana an Ayurvedic Dispensary was opened in 1968, but due to superstitions, this facility was not utilized properly by the village people. Gradually the change took place and people started availing this facility and in 1975 a total of 1591 patients were registered in the dispensary for treatment. In 1980, the strength of patients decreased to 882 and again raised to 1580 in 1983. During our present survey, the average number of patients registered was 15 to 20 per day in the dispensary. However, the conservative nature of Malanis did not allow the use of thermometer to measure the temperature by a compounder/pharmacist. They even do not enter the dispensary room to take medicines. They do not take dosage of medicine especially of syrup/liquid type; rather ask for a complete pack (bottle) of medicine. This practice is creating a lot of problems to the staff of dispensary. The dispensary pharmacist complained about the problems created by villagers during our field visit. In this dispensary, there is a provision of one doctor, one compounder/pharmacist and one peon but unfortunately for many years, no doctor is posted here. Only one pharmacist/compounder and one peon are manning the dispensary at Malana. During our earlier survey, i.e., in 1991 it was observed that for most of the time doctor remained absent from duty and the compounder alone attended the patients. In the present survey, it was also noticed that the village panchayat has placed the 8 dustbins to dispose of the waste material but people have destroyed all of them. At present both sides of village Malana are having garbage heaps mostly of non-degradable waste material. This practice will spoil or pollute the environment and the ecosystem of Malana. Image 5.1 depicts the present status of the environment of Malana.



Image-5.1: Littering menace to the village environment

5.1.4 THE MALANA COOPERATIVE SOCIETY

According to village Pradhan Sh. Bhagi Ram, till 1978, there was no cooperative society in Malana. The Malana cooperative society was formed in 1978 with headquarter at Jari (16 kms from Malana). It started functioning from Malana village since 1982. The society was handling the Public Distribution System (PDS). A Malanee was working as in-charge of the society. The monthly quota of the society was fixed by the state government. All items like sugar, rice, wheat, pulses, vegetable oil, janta cloth and kerosene were distributed to the villagers 4-5 times during the year. During our present survey, it was noticed that all these items were handled by the Incharge. In Malana the Public Distribution Store is maintained by a private Depot holder who is residing in Jari. According to the Depot holder, Mr. Chaman Lal, “All types of ration articles for 6 months a time”, in one go are provided before the onset of snowfall.

According to the village Pradhan, the whole population/households are classified in to the following categories.

1. Above Poverty Line (APL) = 257
 2. Below Poverty Line (BPL) = 65
 3. Integrated Rural Development Programme (IRDP) = 31
 4. Antyodaya Families = 11
 5. National Food Security (NFS) = 51
- Total Ration Card Holder = 415

As per revenue records, there are 317 households and many of them are living together with a common kitchen, with separate ration cards. Consequently, the number of ration card holders comes to 415. Populations of Malana (including all the above mentioned categories) are provided with the different quantity of food/other items according to their classified category. According to the Depot Holder, all Malanis insist on full ration articles annually. However, they are satisfied with the material provided to them. Earlier, those persons who wish to collect their supply from Jari were allowed a premium of Rs. 0.95 per kg. as carriage charges. Now with the construction of the road, the entire material is provided in the village itself.

5.1.5 THE MALANA HERBS MARKETING CO-OPERATIVE SOCIETY

This society was formed during the 80s. The main function of the society was to procure herbs and other minor forest products collected by Malanis and to forward the same to distant markets. But after functioning for a few years the society became non-operational due to hard competition from private traders with in the village and from outside. At one time one of the local traders started purchasing herbs and other minor forest/support land products in small quantities from the people of Malana and after drying and proper grading the product was marketed in distant markets at a good reasonable price.

During the current survey, it was noticed that this practice has almost changed. People have showed little interest in collecting traditional minor NTF produces (NTFP). They have shifted towards collecting cannabis from widespread common land of Malana territory and then directly selling them to the tourists coming to the village. They did not require any intermediary of marketing for their collected product. A number of buyers used to come to the village for purchasing different types of products. By this process the villagers are getting exorbitant price for their products. The failure experience of Malana with Malana Co-operative society tells of failure of co-operating solution as a means to maximizing villagers' income as long as middlemen are allowed to exist, and there is no consolidation of the markets with forward and backward linkages.

5.1.6 EDUCATIONAL INSTITUTIONS

During 1992, the village was having one Government Primary School. Though, it was established in 1944, started functioning from 1967. The strength of the students remained poor. Till 1984 there was only one teacher in the school but after 1985, there have been two teachers in the school. Presently the school is having two teachers, one headmaster and one water carrier. The provision of Government Midday Meal is also available. However, no students were found coming to school during October, and it is feared that the same situation would

continue during November also. The parents of students informed the teachers about their children absence from the school, because October and November are the busiest months for Malanis.

In 1996 a Junior High School was established and later on in 2008 the school was upgraded to High School. Thus, currently, Malana village has a Government High School as well. The school is having one information and communication technology lab (ICT) with 6 computers for the training of students (Image5.2). Two smart classes are also in operation (Image 5.3). The condition of the laboratory, as well as smart classes requires attention. During October and November, no student attends school. As per school record, there were 184 students studying in the school. Out of these, 44 percent were girl students. In 10th class, there were 21 students, out of which four were girls.



Image-5.2: ICT lab in Government High School in Malana



Image-5.3: Smart class in Government High School in Malana

5.1.7 BRANCH POST OFFICE

A branch post office has been functioning since 1985 in Malana. It is managed by extra departmental staff (EDS) appointed by the Post and Telegraph Department. These persons handled the collection of postage from Jari Post Office and made available to Malanis. These persons are inhabitants of Malana. At present, the same system is functioning in the village. With the introduction of mobile facilities, the use of the postal system is reduced to a large extent. The mobility of Malanis to distant places also reduced the dependency of Malanis on post offices. The entire population of village Malana is fully satisfied with the postal services provided by the branch post office.

5.2 JAMLU DEVTA TRUST

This trust is managed by 11 members Devta Committee constituted on democratic lines. This Committee is managing social, legal and administrative affairs of the entire Malana territory since time immemorial. But its role is slowly increasing as Malanis are approaching appropriate authorities for redressal of their legal and administrative problems. However, for social matters, the Devta Committee is still supreme. The Devine ruler of the area is 'Jamlu Devta' and it is believed that the entire village land is owned by 'Jamlu Devta'. Interestingly, the temple epitomizes his presence, as there is no statue of the Devta. Devta manifests in the form of golden and silver images of horses, deers, in the musical instruments of narsingha, karnal, naggara-dhol and sticks housed in this temple. On the main door of the temple the horns of snow ibex, kanath, ghorad deer are mounted. The

Trust's Chairman is called 'goor', a position of inheritance, it is through him that the deity speaks. The appearance of the deity in the psyche of the medium, goor, to speak up involves him getting into a transcendent state. Since the death of the last goor, for many years the trust is without this functionary still. Goor wears choor, also known as 'chela', wears long hair and supports a turban.

Beside legal and administrative functions, this Committee is responsible for repairs and maintenance of devta's property, i.e., temples, buildings, store (Bhandar) and devta treasury. Unfortunately, with the fire accident in 2007-08, some portion of Jamlu Devta temple was raised to the ground. A large part of Malana village was turned was gutted by the fire. After the fire accident, the Devta Trust has reconstructed the damaged portion of the temple. Villagers also reconstructed their houses by using RCC structures. Now 73 percent houses in the Malana village are modern houses with facilities of toilet, kitchen and water. This committee also manages the organization of fairs and festivals, religious functions, common kitchen, shelter and food to outside visitors, storage of food and non-food items and temple treasury. Major part of revenue for the trust comes from offerings by devotees, income/offering during fairs and festivals. Annually, each family from Malana contributes a minimum fixed amount of food grains and cash in the service of Jamlu Devta which forms the regular revenue of devta's trust. The Committee members, in participation with inhabitants of Malana keep a constant watch over the Devta's treasury and temple's property. A visitor to the village with no arrangement for stay and meal is allowed to stay in the devta's 'Sarai' and is provided with food and beddings from the Bhandar of Jamlu devta. The people of Malana are very hospitable but very suspicious of stranger's motives. No outsider is allowed near the temple and other buildings of devta trust. The offering to devta are placed in the nearby place to *Patra* which is located in the middle of '*Harcha*' (Image 5.4 and 5.4a) and later on lifted by the cashier or *bhandari* and deposited in Devta treasury. No account of the treasury is being maintained and this practice is still continuing.

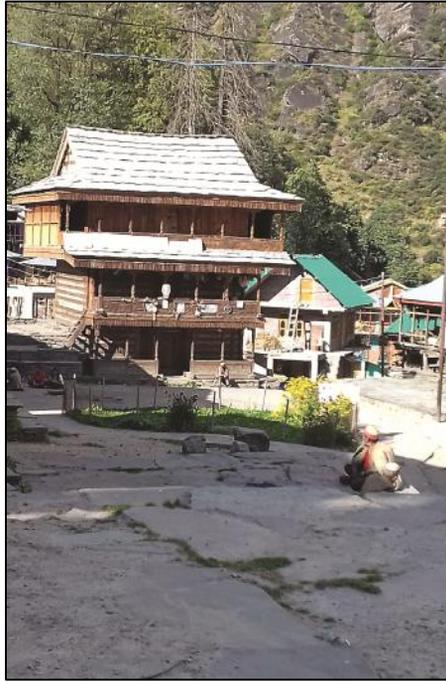


Image-5.4: Devta Committee's central place Harcha in Malana (Lower House)



Image-5.4a: Devta Committee's central place Harcha in Malana (Upper House)

5.3 LEGAL AND ADMINISTRATIVE INSTITUTION/SYSTEM

Earlier Malana was sovereign in its socio-economic, religious and administrative setup. The village was said to be the oldest direct democracy of the world where all the inhabitants of the village participate in the legal and administrative system. The Malana Republic consists of two houses, i.e., Upper House and Lower

House. These houses were responsible for the legal and civil administration of the Malana territory. The upper house was called “Quorum or “Jestang”. These institutions were running the administration of entire Malana Republic. Quorum consists of 11 members. Three of which are permanent members i.e. Kardar, Pujari and Goor. For the past 25 years, the Quorum is without Goor and consists of 10 members. The present Pujari being a senior citizen and functionary of the Quorum is performing the duties of Goor also. Traditionally, new Kardar and Pujari are nominated/elected from the families of ex-Kardar and Pujari. These three members are also called “*Karmisth*” whereas remaining eight members called “*Jatheres*” and are elected from the four Wards of Jamlu Devta. The village is divided into four Devta Wards and from each Ward two members are elected for a maximum term of three years. If the members are not found suitable fresh elections are held within a year. The lower house is called “*Quore*” or *Kanistang* and is represented by the head of each family of the Malana village.

Before 2010, for all types of legal and administrative matters pertaining to land or property dispute, criminal, social offence, use of common property and organization of fair and festivals, the matter was first referred to Upper House i.e. Quorum. Problems are discussed and resolved by the members of Quorum at ‘Chotra’ which is a raised platform constructed of big stones and slates. In front of Chotra, there is another place called Patra which is the seat of Jamlu Devta. Nobody is allowed to touch the Patra. The judgment on particular matter is first delivered by the Upper House and then referred to the Lower House ‘*Quore*’ for approval. The Quore members assemble on a ground in ‘Dhara Behr’ segment of the village. If the Upper House decision is approved by the lower house, the same is announced by Quorum at the place of ‘Chabutra’. In case the Lower House rejects the decision of Quorum, the matter is again referred to Quorum for more consideration. Many times, the matter is sent for review to the Lower and the Upper Houses. The Upper House has four Marshals known as “*Pagardar*”. Whenever a meeting is to be called or some decision is to be taken, the Pagardar, takes round of the village announcing – ‘*Jarangajarhe*’ meaning “come and attend the meeting and take the oath of Jamlu Devta”. If a unanimous decision is not arrived upon, both the houses, the matter is referred to the court of Jamlu Devta, whose decision is conveyed through the “*Goor*” and it is binding upon the party concerned. Both the parties at dispute are authorized to appoint pleaders (lawyers) for their cause. In the court of Jamlu Devta, i.e., before holy seat of Judgment, where nobody is allowed to move or sit except two petitioners and an announcer (Registrar) of judgment. Before speaking petitioners required take proper bath in common water source wearing only a white blanket (pattu), and then sit near the seat of judgment. As per the legends, the seat of judgment is the place where

Jamadagni Rishi(Jamlu Devta) worshipped for years. This place is not used for other purposes, and is marked by the presence of two trees signifying the Rishi Jamadagni and his wife Renuka.

Since the introduction of election system, as per order and procedure of Election Commission of India, the people of the village started approaching legal and other authorities for the redressal of their legal and administrative problems. Gradually their dependence on the Devta Committee has reduced, though social decision of Devta Committee is still obeyed and followed. During the field visit, no proceeding of Devta Committee was noticed. Earlier cases were considered and reviewed number of times by the upper and lower houses of Devta committee and at last it was referred to 'Jamlu Devta' which is the Supreme Court of Malana Republic. The procedure followed in the court of Jamlu used to be highly ritualistic and mystic involving sacrifice of goats and lambs according to a detailed procedure.

Since people of Malana are accepting various public amenities and privileges, they are persuaded to follow the rules and regulation of Government.

5.4 DEVELOPMENT PROGRAMMES

Under the Integrated Rural Development Programme (IRDP) of the state government, 31 families are identified in the Malana village. And out of these, some families are getting benefits available in the programme. During our field visit of the study village, some sign boards of Rural Development Department depicted some rural welfare programmes. In 1991, out of 137 families identified under IRDP, only one schedule cast family was taking the benefits of this programme. This family was given loan twice for installation of Handloom Industry. At the time of survey (June 1991), this family was not having any outstanding amount of loan received under IRDP. At present nobody is getting any loan or other aids under IRDP.

Under the Antyodaya Programme of the State Government, eleven families from Malana village have been identified at the present time and no special benefit is extended to these families except the subsidized ration at the rate of approved quantity notified by the state government. During 1992 seven families from Malana village were identified under Antyodaya Programme. At that time also no special benefit was extended to these families except the subsidized ration, such as 6 kgs, of wheat, 1 kg of rice per adult member and 3 kgs of wheat and ½ kg of rice per child and 1 kg salt per Antyodaya family during a month.

5.5 GOVERNMENT AID TO MALANA PANCHAYAT

The Malana village falls under the jurisdiction of Naggar Block Samiti in Katrain, district Kullu. During 1991 the same Block Samiti was catering the needs of Malana village for various types of development programmes on yearly basis. At present, the funding systems have been changed and the village panchayat is directly provided the funds through LADA. Under Local Area Development Authority (LADA) Rs. 95 lakh were provided to the village panchayat for the construction of roads to join Malana hamlet (old village). Similarly, under 14th Finance, the funds are provided for the construction and repair of streets and drainage channels. According to Panchyat Secretary, 55 street lights and 6 Nalies were constructed under such financial aids to Malana panchayat. Under VMJSY, Rs. 8 lakh were also provided to the panchayat to undertake any development work, wherein, 10 percent of cost should be shared by panchayat. In Mahatma Gandhi National Rural Employment Guarantee Scheme (MANREGS) about 75 people are participating in the employment programme. A multi-storeyed mini secretariat building is under construction with the government aid. In this building all public institutions will be accommodated. The Government High School, Ayurvedic Dispensary, Panchayat Ghar and other departments will be provided the space in this building.

5.6 SUMMING UP

Malana panchayat is able to utilize various types of facilities provided by the Government such as water supply scheme, electricity facilities, Public Distribution System, and medical and public health facilities. All PDS items are provided to Malanis before snow fall every year. One Government Primary and High School are functioning in village. A branch Post Office has been functioning since 1985 and entire population of village Malana is fully satisfied with the Postal Services provided by the branch Post Office. Jamlu Devta trust is managed by eleven members and the committee constituted on democratic lines. Rural Development programmes, such as I.R.D.P., MNREGS, are being implemented. However, less interest was shown in MNREGS activities with only 75 people participation.

CHAPTER – VI

THE ECONOMY OF MALANA

INTRODUCTION

This chapter deals with Malanis economic activities based on their natural and human resources. Their land based activities of farming, livestock, common pool resource activities of collecting horticultural and forest produce and other income earning activities are studied to bring out the economic dynamism that the village is undergoing during this period of study. Important activities include crop production, animal rearing, common pool resources production/collection and subsidiary enterprise. In the context of Malana village, above criteria of economic viability had been completely changed during previous decades as people have shifted toward production and collection of NTFP along with animal rearing. An attempt has also been made for assessing the dependence of Malanis on food and non-food items and to study their income, expenditure and saving pattern of Malanis. Some Malanis have established tourism/trekking restaurants as a subsidiary enterprise. The crop production sector including food crops is almost neglected.

6.1 LAND HOLDINGS

On the basis of standard size class distribution, 92 percent farmers fall into the category of marginal land holders, with land holdings below 1 hectare. The cultivated land owned by this class of farmers accounts for 41.8 percent of the total cultivated land of the village. Small farmers account for 8 percent of total holdings with 58.2 percent of the cultivated area (Table 6.1). The average holdings for these classes of farmers worked out to be 0.11 hectares and 1.97 hectares respectively and 0.25 hectare for all farms. With the increase in population and consequent land fragmentations there are no household having more than 2 hectares of land. The entire land owned by Malanis is under self-cultivation. There has been no report of crop sharing. The cultivated lands constitute 93.1 percent of total land owned by Malanis. Sparing the cultivated land under current fallow has drastically reduced in Malana (Table 6.1). Earlier practice of leaving one tract of cultivated land owned by villagers for the regeneration of soil health each year has been abandoned. Uncultivated land mainly under common fodder accounts for 4.83 percent. This percentage is more on small farms (Table 6.1). In the total number of farms net area sown accounts for 85.66 per cent of the total land, while cropped area accounts for 165.43 percent which is 177.70 percent of the cultivated land. The entire agriculture land is depending on rainfall. Though the area has plenty of natural gravity water channels flowing all the year round, people have no interest in using the perennial water source for crop production.

Table-6.1: Distribution of Land Holdings

(Hectares)

Sr. No.	Particulars	1990-91	2016-17			Percentage change
		All Farms	Marginal farms	Small farms	All Farms	
1.	Total holding	170	293	24	317	86.47
2.	Total land	145.11	32.52	47.40	79.92	-44.92
	Operated/cultivated	116.49	31.13	43.27	74.40	-36.13
	Uncultivated land					
	Boarder & path	15.14	0.20	0.25	0.45	-97.03
	Misc. tree crops	0.52	0.13	0.46	0.59	13.46
	Barren land	8.28	0.23	0.71	0.94	-88.65
	Grassy land (Ghasni)	4.68	0.83	2.74	3.59	-23.29
	Total	28.62	1.39	4.13	5.52	-80.71
3.	Current Fallow	52.95	2.94	3.00	5.94	-88.78
4.	Net area sown (NAS)	63.54	28.19	40.27	68.46	7.74
5.	Gross cropped area (GCA)	124.58	56.00	76.21	132.21	6.98
6.	Irrigated land	0.00	0.00	0.00	0.00	0.00
7.	Average size of holding	0.85	0.11	1.97	0.25	-70.59

Source: Own field survey

6.2 LAND USE CLASSIFICATION AT VILLAGE LEVEL

Out of the total geographical area owned by Malanis, 72.35 percent is accounted for agricultural land, 25.83 percent under Common Property Resources and remaining 1.82 percent is under other than agriculture and support land. During 1989-90 the proportion of agricultural and support land was 74.86 and 17.32percent respectively. This shows that the ratio of agriculture to support land is declining which is against the sustainability of mountain system. The main component of support land in Malana is for pasture and grazing purposes. Barren lands are increasing at an alarming rate (Table 6.2). Due to high growth of population, acreage under current fallow has declined from 52 hectares during 1990-91 to 24 hectares in 2016-17. The ratio of agricultural to support land has increased from 0.23 hectare in 1991 to 0.36 hectare in 2016-17. This increase is mainly due to many fold increased dependence of Malanis on public support land, i.e., forest (Table 6.2). However, due to high population pressure on agriculture as well as on support land the per capita availability of agriculture and support land have declined from 0.08 hectare in 1989-90 to 0.02 hectare in 2016-17. During 1989-90 the per capita agricultural and support land was 0.14 hectare and 0.03 hectare respectively. The overall per capita availability of land in the village has recorded a negative change of 47.37 percent during the above period.

Table-6.2: Land use Classification (Village Level)

(Hectares)

Sr. No.	Land Class	1979-80	1989-90	2016-17
1.	Total Geographical Area	179	179	176.28
2.	Agricultural Land	129	134	127.53
3.	Support Land			
	Forest	*	*	16.00**
	Barren Land	3	3	8.80
	Pasture & Grazing Land	NA	NA	12.75
	Cultivable Waste	33	28	2.40
	Misce. Tree crops	*	-	5.60
	Total	36	31	45.55
4.	Land other than Agri. & Support land	14	14	3.20
5.	Current Fallow	6	52	24.01
6.	Per-capita			
	Agri. Land	0.17	0.14	0.08
	Support Land	0.05	0.03	0.02
	Other Land	0.02	0.02	0.00
	Total	0.24	0.19	0.10
7.	Ratio of Agri. to Support Land	0.28	0.23	0.36***

Source: Village Patwari Malana, Himachal Pradesh

*Data was not available in revenue record.

**Not included in total land

***Including forest area

6.3 LAND UTILIZATION PATTERN - FARM LEVEL

At the farm level the ratio of agriculture to support land worked out for 2016-17 is 0.07 hectare on all farms and the same is 0.10 hectare on small farms. The same ratio was 0.25 hectare on all farms in 1990-91. This shows that the acreage under CPR has drastically reduced due to high dependence of people on this category of land. On an average farm agriculture land accounts for 93.09 percent of the total owned land and the share of private support land is 6.91 percent (Table 6.3). During 1990-91 the land devoted under crop production was 80.3 percent and the share of private support land was 19.7 percent. Earlier due to the traditional system of leaving one patch of cultivated land under current fallow in alternate years, the net area sown was accounted for 54.5 percent of total agricultural land possessed by Malana farmers. Now the same has increased to 85.66 percent in 2016-17. This ratio is more on marginal farms (Table 6.3). As per the conventional definition, the annual cropping intensity worked out is 193.12 percent while on the basis of total cultivated land it is 165.43 percent. This clearly shows that the practice of leaving the cultivated land as fallow land has drastically reduced and the gap between total land and agriculture land has reduced at the farm level. Two decades ago the current fallow land devoted by Malanis was accounted for 45.5 percent of agricultural land and in 2016-17 it was only 7.98 percent for all farms. However, this ratio is slightly higher (9.44 percent) on marginal farms. The share of net area sown has increased to

85.66 percent on all farms and the share is almost the same on all sizes of farms (Table 6.3).

Table-6.3: Land Utilization Pattern

(Percentages)

Sr. No.	Particulars	1990-91	2016-17			Percentage change
		All farms	Marginal farms	Small farms	All farms	
1.	Agricultural Land	80.3	95.73	91.29	93.09	15.93
2.	Support Land	19.7	4.27	8.71	6.91	-649.24
3.	Current Fallows	36.5	9.04	6.33	7.43	-796.44
4.	Net Area Sown	43.8	86.69	84.96	85.66	955.71
5.	Total Land	100.0	100.0	100.0	100.0	-
6.	Col. 3 as % of Col.1.	45.5	9.44	6.93	7.98	-824.6
7.	Col.4 as % of Col.1	54.5	90.56	93.07	92.02	689.99
8.	Ratio of Agri. Land to Support Land (Ha.)	0.25	0.04	0.10	0.07	-72.00

Source: Own field survey

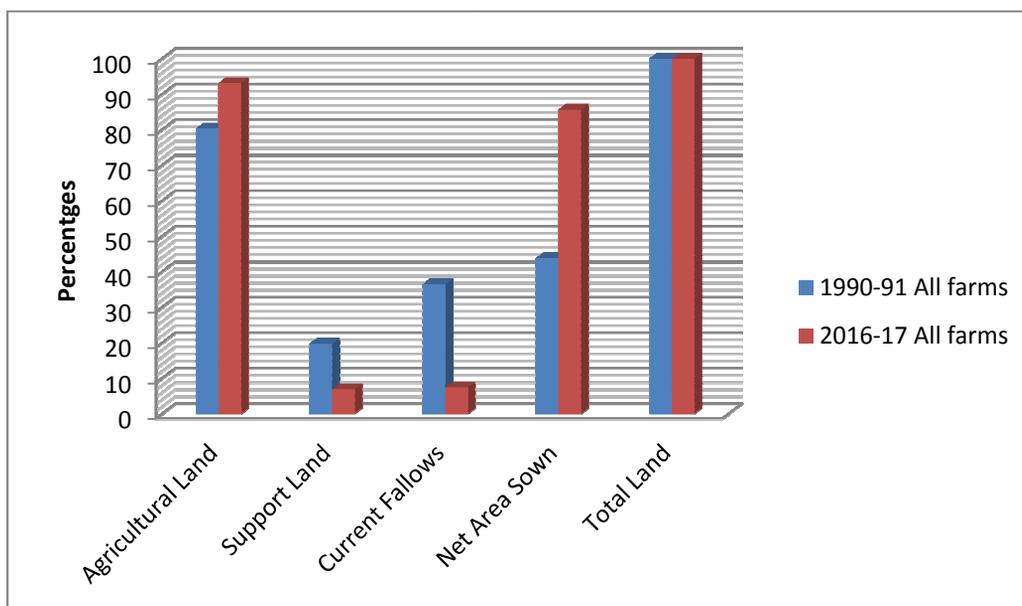


Figure-6.1: Land Utilization Pattern

6.4 CROPPING PATTERN

Type of crops grown determines the level of agriculture in a region. The nature of cultivation remains primitive among Malanis. Traditionally Malanis were growing those crops which fulfilled their staple food requirements. The major crops grown by them were millets in kharif season and wheat and barley in Rabi

season. Due to the availability of the alternative source of income, almost all Malanis have not bothered to grow these crops for their food requirements. For such requirements, they have completely shifted towards superior food grains obtained from the market and Public Distribution System. Hence, they are not growing even major crops like maize and wheat for family requirements. They are only growing maize crop for fodder requirement, of domestic cattle (Image6.1). The area under maize crop has increased to 51.75 hectares in 2016-17 from 1.06 hectares in 1990-91 (Table 6.4).

Table-6.4: Cropping Pattern

(Hectares)

Sr. No.	Particulars	1990-91	2016-17			Percentage change
		All farms	Marginal farms	Small farms	All farms	
1.	Kharif Crops	62.89	28.19	40.27	68.46	10.97
	Kathu (S.Millet)	49.73	-	-	-	-
	Choulai (S.Millet)	5.25	-	-	-	-
	Potato	3.07	4.02	3.12	7.14	132.57
	Rajmash	3.26	3.59	5.98	9.57	193.56
	Maize	1.06	20.58	31.17	51.75	4782.07
	Kooth (Herb)	0.50	-	-	-	
	Vegetables	0.02	-	-	-	
2.	Rabi Crops	61.69	27.81	35.94	63.75	3.34
	Wheat	52.88	25.54	34.66	60.20	13.84
	Barley	7.43	2.27	1.28	3.55	-52.22
	Mustard	1.38	-	-	-	-
3.	Gross Cropped Area (GCA)	124.58	56.00	76.21	132.21	6.12

Source: Own field survey

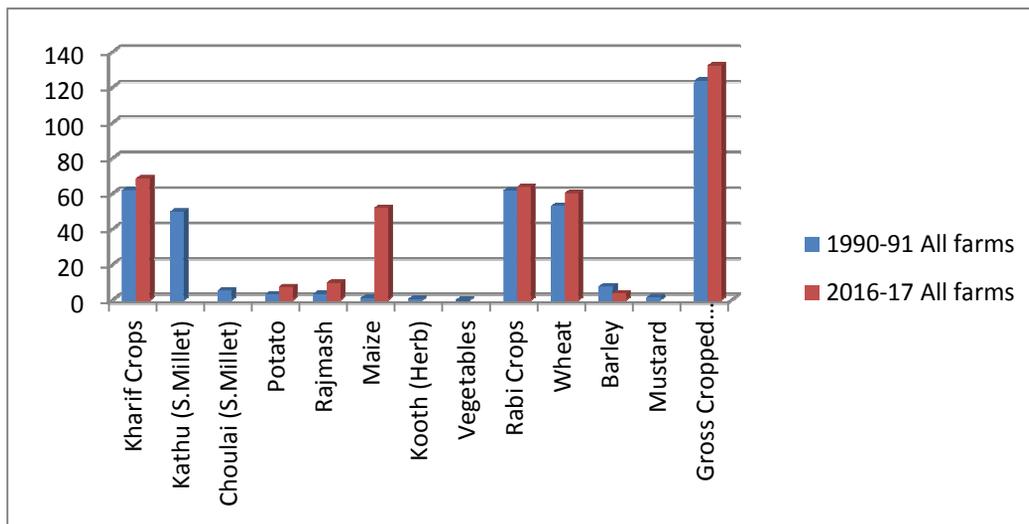


Image-6.2: Cropping Pattern

The area under kharif crops such as rajmash (pulse) and potato (vegetable) has also increased from 3.26 and 3.07 hectares in 1990-91 to 9.57 and 7.14 hectares in 2016-17 respectively. Earlier Malanis were growing seven different crops during kharif season and three during Rabi season, but at present only three crops in kharif season and two crops in Rabi season are grown by Malanis (Table 6.4). In Rabi season area under wheat crop has increased from 52.88 hectares in 1990-91 to 60.20 hectares in 2016-17. The area under barley crop has decreased to 3.55 hectares in 2016-17 from 7.43 hectares in 1990-91. The overall gross cropped area has increased from 124.58 hectares in 1990-91 to 132.21 hectares in 2016-17. Cultivation of these crops entirely depends on natural precipitation. The maize crop alone accounts for 75.59 percent among kharif crops and wheat accounts for 94.43 percent among Rabi crops. The other crops grown by Malanis include potatoes, rajmash and barley. Earlier the Malanis were growing a high value herb crop called kooth but at present, the same crop is not grown by any farmer. The acreage under these crops varies on different size of farms (Table 6.4).



Image-6.1:Kharif crop maize used as fodder in Malana

6.5 CHANGES IN CROPPING PATTERN

During last two decades, a number of new crops were introduced in Malana (Table 6.5). Before 1980-81 only four food crops were reported to be grown by Malanis. In 1990-91 pulses, oilseeds, vegetables and medicinal crops were introduced for cultivation. During 2016-17 the area under traditional crops has declined and it has shifted towards wheat and barley among Rabi crops and maize, pulses and vegetables among kharif crops. There has been an overall increase in acreage from 124.58 hectares to 132.21 hectares (Table 6.5). The main indicators of negative and positive growth listed in Table 6.5 reveal that supply of food grains through Public Distribution System, availability of better quality grains in open market and low productivity/returns from traditional crops are the main causes of change in the cropped area. Moreover, in rural areas, traditionally farmers grow those food grains which fulfill their family requirements. With enough finance to purchase various commodities for their family requirement from the open market, little interest is shown in growing food crops on their farm lands (Image 6.2).

Table-6.5: Indicators of Change in Cropping Pattern

(Hectares)

Sr. No.	Particulars	1990-91	2016-17	Growth Indicators
1.	Kharif crops			
	Maize	1.06	51.75	More importance for cut and carry feeding of animals as fodder crop.
	Millets	54.98	-	Low productivity and availability of superior grains from PDS and market
	Pulses	3.26	9.57	Awareness of nutritional value and suitable climate for crop production
	Potato & Other vegetables	3.09	7.14	Suitable vegetable crop of the area
	Kooth (herb)	0.50	-	Availability of high value herb crop from support land
2.	Rabi crops			
	Wheat	52.88	60.20	Only superior grain crop in the area
	Barley	7.43	3.55	Low productivity
	Mustard	1.38	-	Availability of other oilseed output from market
3.	Total crops	124.58	132.21	High dependence on PDS and market.

Source: Own field survey

Note: Since area under these crops is insignificant, hence not recorded by Village Patwari.
PDS = Public Distribution System.



Image-6.2: Status of traditional crops in Malana

In the surrounding region as well as in some valleys of the state, production of off-season vegetables has become commercial during the last decade. These crops give more returns per unit of land as compared to traditional crops.⁵⁰

6.6 NATURE AND EXTENT OF CROP DIVERSIFICATION

The details of crop diversification are given in Table 6.6. The data in the table shows that the value of Herfindhal Index in 2016-17 was 0.3694 as compared to that in 1990-91 when it was 0.3464. Thus it can be concluded that the extent of crop diversification was comparatively high in 1990-91 as compared to 2016-17.

⁵⁰ D.V. Singh, Production and Marketing of off-Season Vegetables, Mittal Publications, New Delhi 1991.

Table-6.6: Extent of Crop Diversification

Sr. No.	Crops	1990-91			2016-17		
		Ai	Pi	Pi ²	Ai	Pi	Pi ²
1.	Kathu	49.73	0.3992	0.1593	0	0.0000	0.0000
2.	Choulai	5.25	0.0421	0.0018	0	0.0000	0.0000
3.	Potato	3.07	0.0246	0.0006	7.14	0.0540	0.0029
4.	Rajmash	3.26	0.0262	0.0007	9.57	0.0724	0.0052
5.	Maize	1.06	0.0085	0.0001	51.75	0.3914	0.1532
6.	Kooth (Herb)	0.5	0.0040	0.0000	0	0.0000	0.0000
7.	Vegetables	0.02	0.0002	0.0000	0	0.0000	0.0000
	Wheat	52.88	0.4245	0.1802	60.2	0.4553	0.2073
8.	Barley	7.43	0.0596	0.0036	3.55	0.0269	0.0007
9.	Mustard	1.38	0.0111	0.0001	0	0.0000	0.0000
10.	$\sum_{i=1}^n P_i^2$	124.58	1	0.3464	132.21	1	0.3694

Source: Own field survey

Note: Ai indicates actual area under each crop

Pi indicates proportionate area under each crop.

6.7 AREA AND PRODUCTION OF FIELD CROPS

During the crop year of 2016-17 a total of 485.57 quintals of cereals were produced by Malanis and out of that wheat alone accounted for 79.37 percent of the total grain production. However, during crop year 1990-91, a total of 404.90 quintals of cereals were produced and out of that wheat accounted for 85.66 percent. Over the last 25 years about 20 percent food grain production has increased. In the entire village maize crop is mainly grown as the fodder crop. It is harvested in early stage and dried for cattle feeding in the winter season (Image6.3).



Image-6.3: Produce of maize crop in Malana

Its share in total food grain is only 18 percent. Almost in all food crops, the situation of output is similar on all sizes of farms (Table 6.7). The other main food crop grown by all categories of farmers is rajmash, a pulse crop. However, its production is insignificant (54.60 quintals). Rajmash is the only pulse crop which is still produced in Malana and the same crop was also produced by Malanis in 1990-91. Potato is the only vegetable crop grown by Malanis, its acreage and production is 7.14 hectares and 333.6 quintals respectively. During 1990-91 barley crop was produced by Malanis and its share in food grains was 11.82 percent which is at present reduced to less than 3 percent. Small farmers show the least interest in growing potato and barley crops. In other crops also the similar type of acreage and production trend being observed on different sizes of holdings (Table 6.7).

Table-6.7: Area and Production of Field Crops

Sr. No.	Particulars	1990-91		2016-17					
		All farms		Marginal farms		Small farms		All farms	
		Area	Production	Area	Production	Area	Production	Area	Production
1.	Maize	1.06	10.20	20.58	31.96	31.17	55.05	51.75	87.01
2.	Rajmash (Pulse)	3.26	15.42	3.59	17.23	5.98	37.37	9.57	54.60
3.	Potato	3.07	186.75	4.02	140.6	3.12	193.00	7.14	333.6
4.	Wheat	52.88	346.85	25.54	123.36	34.66	262.04	60.20	385.4
5.	Barley	7.43	47.85	2.27	8.91	1.28	4.25	3.55	13.16
6	All crops	67.70	607.07	56.00	322.06	76.21	551.71	132.21	873.77

Source: Own field survey

Note: Area in hectare, Production in quintal

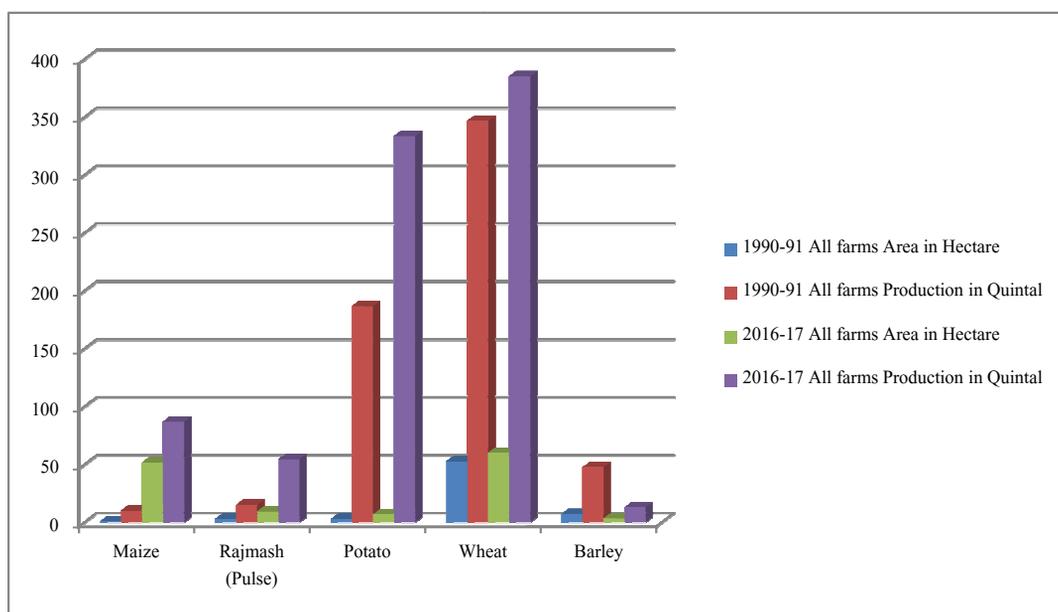


Figure-6.3: Area and Production of Field Crops

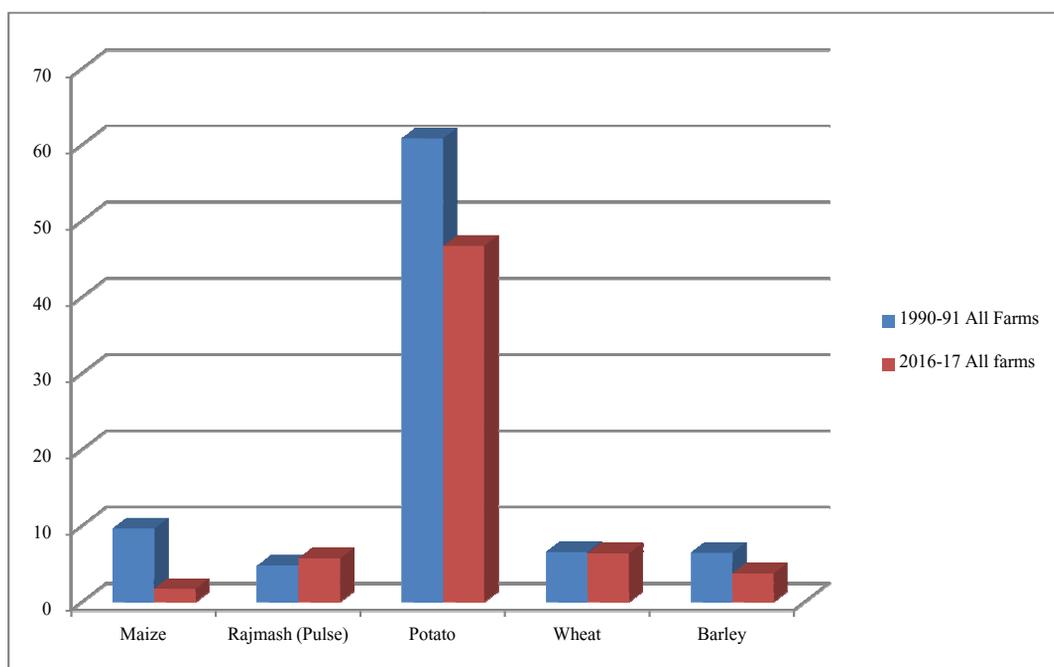
6.8 PRODUCTIVITY OF FIELD CROPS

Table 6.8 presents the details of crops grown and there is a reduction in the productivity of all crops except rajmash over the last decades. For example, there is 82.54 percent decrease in maize production between 1990-91 and 2016-17. Though the potato is the only vegetable crop grown by Malanis, still its productivity has declined to 23.19 percent during last 25 years. Though the productivity of rajmash has increased from 4.73 quintals/ha in 1990-91 to 5.71 quintals/ha in 2016-17, with a percentage change of 20.72 percent (Table 6.8). Analysis of data suggests that the productivity of various field crops grown by Malana is decreasing. It is lower than the state average and far below then the optimum level.

Table-6.8: Productivity of Field Crops

(Qtls/ha.)

Sr. No.	Particulars	1990-91	2016-17			Percentage change
		All Farms	Marginal farms	Small farms	All farms	
1.	Maize	9.62	1.55	1.78	1.68	-82.54
2.	Rajmash (Pulse)	4.73	4.80	6.25	5.71	20.72
3.	Potato	60.83	34.98	61.86	46.72	-23.19
4.	Wheat	6.56	4.83	7.56	6.40	-2.44
5.	Barley	6.44	3.93	3.32	3.71	-42.39

Source: Own field survey**Figure-6.4: Productivity of Field Crops**

6.9 RETURNS FROM FIELD CROPS

The return from various crops grown by Malanis is presented in Table 6.9. The results in the table indicate that a return on total cost is estimated to be far below to the standard returns. The weighted average of gross returns, as well as net returns for crops grown by Malanis, is also estimated. The figures in Table 6.9 reveal that now-a-days almost all categories of farms are getting more returns from each crop than it was in 1990-91 crop year.

Table-6.9: Returns from Field Crops on All Farms

(Rs./ha.)

Sr. No.	Particulars	1990-91	2016-17	Net Returns on			
		Gross Returns	Gross Returns	1990-91	2016-17	1990-91	2016-17
				Paid out cost	Paid out cost	Total cost	Total cost
1.	Maize	2844	1680	2436	1465	184	465
2.	Rajmash (Pulse)	4758	57100	4064	48797	1458	14419
3.	Potato	15208	93440	12217	82986	6625	48289
4.	Wheat	2241	7680	1816	7157	466	4453
5.	Barley	1544	4081	1268	3689	-12	1664
6.	All crops weighted average	2750	12124	2268	10395	546	3365

Source: Own field survey

6.10 COST OF CULTIVATION AND NET RETURNS FROM FIELD CROPS

On different sizes of farms, net returns from crops on the basis of paid out cost and cost of cultivation are worked out in Table 6.10. The table reveals that on all sizes of farms the returns on paid out cost are positive and significant. On the basis of standard cost concepts, per hectare cost of cultivation of crops grown by Malanis has been worked out and presented in Table 6.10.

Table-6.10: Cost of Cultivation and Net Income from Field Crops

(Rs./ha.)

Sr. No.	Particulars	Marginal farms		Small farms		All farm cost of cultivation	
		On Paid out Cost	On Total Cost	On Paid out Cost	On Total Cost	Paid out Cost	Total Cost
1.	Maize	1350	350	1380	380	215	1215
2.	Rajmash	40000	6000	50500	11500	8303	42681
3.	Potato	59960	24960	58232	27232	10454	45151
4.	Wheat	5296	2796	8272	2072	523	3227
5.	Barley	3923	1823	3352	2252	392	2417
6.	All Crops Weighted Average	9939	3654	10729	3153	1498	7536

Source: Own field survey

On an average farm, per hectare total cost of cultivation (Cost-C) for potato crop worked out to be the highest (Rs.45151) among all the crops. The gross returns for potato crop are also observed higher than the other crops. The cost of cultivation of major cereal crop wheat is worked out to be Rs.3227 with a paid out cost of Rs.523 per hectare of crop area. The cost of cultivation of the only pulse crop rajmash is estimated to be Rs.42,681 and the net returns on paid out cost is Rs.48,797 per hectare. On average, farm total cost of cultivation during 2016-17 is estimated to be Rs.7,536 per hectare (a weighted average) for all crops. The per farm net returns on weighted average is more on marginal farms as compared to small farms (Table 6.9). The weighted average of net returns from all the crops is worked out to be Rs.10395 per hectare on paid out cost and Rs.3365 per hectare on Cost-C on average farm. The same figures on the basis of paid-out cost varies from Rs.9939 on marginal farms to Rs.10,729 on small farms. Similarly, on the basis of total cost (Cost-C) weighted net returns, varies from Rs.3153 on small farms to Rs.3654 on marginal farms. On the whole marginal farmers are getting more returns from per hectare crop land than the other categories of farmers.

6.11 STATUS OF CROP PRODUCTION

The production of traditional crops is proved to be completely uneconomical due to fragmentation of land holdings and alternative use of the small land base to get more return per unit of land. In 1990-91 also due to adverse climatic conditions the crop production was less. Due to low productivity, the traditional crops give very less weight-

age in the process of production. Moreover, due alternative sources of income this enterprise of crop production is almost neglected by the Malanis. However, some new high value crops are being cultivated in place of traditional crops which give good returns per unit of land. Because of primitive nature of crop cultivation, the productivity of traditional crops like maize, wheat, barley and potato is very low. These crops give Rs. 9939 /farm/annum return on marginal farms to Rs. 10729 /farm/annum on small farms (Table 6.11).

Table-6.11: Economic viability and Sustainability of Enterprises

(Rs./farm/annum)

Sr. No.	Enterprise	1990-91		2016-17	
		All farms	Marginal farms	Small farms	All farms
1.	Crop Production				
	Net returns on:				
	Paid out cost	1649	9939	10729	10395
	Total cost	396	3654	3153	3365
2.	Animal Husbandry				
	Net returns on:				
	Paid out cost	6430	61163	162303	68821
	Total Cost	1680	6167	6099	6163
3.	Support Land Prod.				
	Net Returns*				
	Per Farm	2124	325412	460536	335764
	Per capita	379	54599	50004	54068
4.	Subsidiary Enterprises				
	Net returns**				
	Per Farm	1499			
	Per capita	267			
	Per worker	555			

Source: Own field survey

Note: * These returns are exclusive of income from banned narcotic products

** In this category it was not possible to record income and expenditure of tourism and hut restaurants owned by Malanis.

6.12 LIVESTOCK RESOURCES

Since the bullocks were not used for tillage purposes, the entire village had only 22 bullocks in 1990-91. At present no farmer is rearing bullocks (Table 6.12). Other important domestic animals raised by Malanis include cows, sheep, goats and mules and ponies. Significant numbers of dogs are also tamed for watching and warding purposes. Out of total livestock, sheep alone accounts for more than 55 percent followed by goats 42.70 percent and cattle account for less than one percent. During 2016-17 the position of

marginal farmers was better than the small farmers in livestock rearing (Table 6.12). The ratio of milking cows as well as total cows is better than small farmers. However, the practice of rearing cattle has drastically reduced between 1990-91 and 2016-17. Now, the numbers of cattle reared by small farmers are insignificant. With the improvement in living standard, the number of horses and ponies has increased to 453.84 percent over 1990-91 (Table 6.12). The number of sheep and goats has increased many folds during last 25 years, but the proportion of improved breeds of sheep and goats is very low i.e. 1.39 and 0.67 percent respectively. On an average, each household is possessing 15.93 standard animal units in 2016-17 which is far better than in 1990-91, when there were 8.57 units. In the present time small farms are possessing 47.31 standard animal units as compared to 13.36 units on marginal farms. The overall animal wealth of Malanis has changed to 85.88 percent during last 25 years.

Table-6.12: Livestock Resources

(Numbers)

Sr. No.	Animal Class	1990-91	2016-17			Percentage change
		All Farms	Marginal farms	Small farms	All farms	
1.	Bullocks	22	0	0	0	0
2.	Milch animal					
	Total cows	322	34	2	36	-88.82
	Milking cows	164	26	2	28	-82.93
	Young Stock					
	Under one year	75	7	1	8	-89.33
	1-2 years	70	3	-	3	-95.71
3.	Sheep					
	Local Breed	3157	10790	3210	14000	343.46
	Improved Breed	175	-	197	197	12.57
4.	Goats	1899	8263	2426	10689	462.88
5.	Horses/Mules/Ponies	13	66	6	72	453.84
6.	Standard Animal					
	Units	1456.45	3913.85	1135.45	5049.30	246.68
7.	Dogs	107	18	5	23	-78.50
8.	Average Livestock Units (Domestic)	8.57	13.36	47.31	15.93	85.88

Source: Own field survey

6.13 CHANGES IN LIVESTOCK WEALTH

During the period from 1991 to 2017, significant growth (86%) in livestock wealth has been observed (Table 6.13). The major component of livestock growth was contributed by sheep and goats, which have increased in number from 5,231 to 24,886 during 1991-2016. The number of cattle (cows and young-stock) has decreased from 467 to 47 during the same period. During 1990-91, 22 bullocks were recorded but at present no farmer owns any bullock. To transport various types of material, the use of animals has increased. This resulted in the increase of the number of horses and ponies from 13 to 72. Possible indicators of growth of animal wealth are given in Table 6.13, out of which, better economic returns and easy accessibility of public support land and local market are the important ones.

Table-6.13: Indicators of Change in Livestock Composition

(Numbers)

Sr. No.	Animal Class	1990-91	2016-17	Growth Indicators
1.	Bullocks	22	-	Use of bullock in crop production completely abandoned from last 4 decades
2.	Cows	322	36	Availability of milk products from local market
3.	Young Livestock	145	11	Least importance for cattle rearing
4.	Sheep	3332	14197	Better economic returns
5.	Goats	1899	10689	-do-
6.	Horse/Mules/Ponies	13	72	Use of animal power for local transportation
7.	Poultry	-		Climatic problems

Source: Own field survey

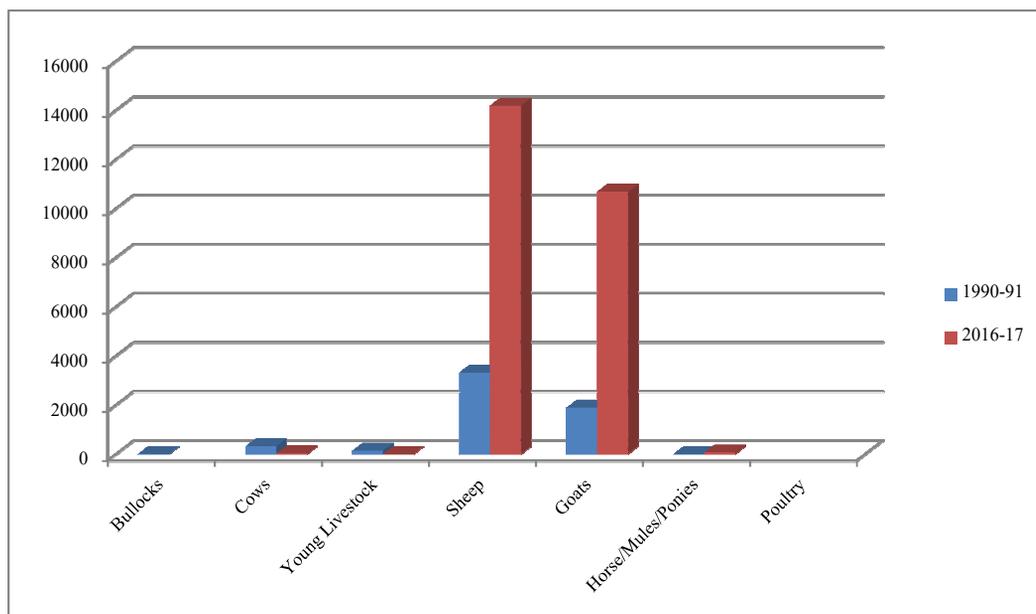


Figure: 6.5 Livestock Composition

6.14 COST OF LIVESTOCK REARING

The important cost components of livestock rearing in Malana includes fodder and labour cost. A significant amount of Rs. 11,873 on an average was spent annually on feed cost and this amount varies from Rs. 10,200 on marginal farms to Rs. 32,300 on small farms. Other costs include veterinary charges, depreciation of cattle shed and equipments. On an average farm, every Malanee is spending 18.19 percent of total cost of livestock rearing on feed cost (Table 6.14). The proportion is slightly higher (i.e. 20.19 percent) on small farms. This shows that Malanis are becoming more aware of better care of livestock wealth. This factor is verified from the veterinary hospital of Malana located at Jari where every year all flocks of sheep and goats are vaccinated for viral diseases. On an average farm, the total cost of animal rearing worked out to be Rs. 65,256 per annum and the same figure varies from Rs. 57,496 on marginal farms to Rs. 1,60,004 on small farms. A similar trend for paid out cost is also observed on different sizes of farms which is Rs. 2598 per annum on the average farm. In the total cost, labour cost accounts for 40.03 per cent, followed by 25.31 percent on fodder, and 18.19 percent on feed costs. Other cost also accounts for 12.47 percent on average farms and this amount is negatively related to the size of farms (Table 6.14).

Table-6.14: Cost of Livestock Rearing

(Rs./farm/annum)

Sr. No.	Items	1990-91	2016-17		
		All farms	Marginal farms	Small farms	All farms
1.	Feed Cost	65 (1)	10299 (17.74)	32300 (20.19)	11873 (18.19)
2.	Fodder cost	893 (13)	14090 (24.51)	46200 (28.87)	16521 (25.31)
3.	Labour cost	4589 (67)	22906 (39.84)	65402 (40.88)	26123 (40.03)
4.	Other cost	230 (3)	7800 (13.57)	12302 (7.69)	8141 (12.47)
5.	Paid out cost	1027 (15)	2500 (4.35)	3800 (2.37)	2598 (3.98)
6.	Total cost	6804 (100)	57496 (100.0)	160004 (100.0)	65256 (100.0)

Source: Own field survey

Note: 1. Other costs includes, depreciation of cattle shed and animals, veterinary expenses.

2. Figure in parentheses denote percentage of respective totals.

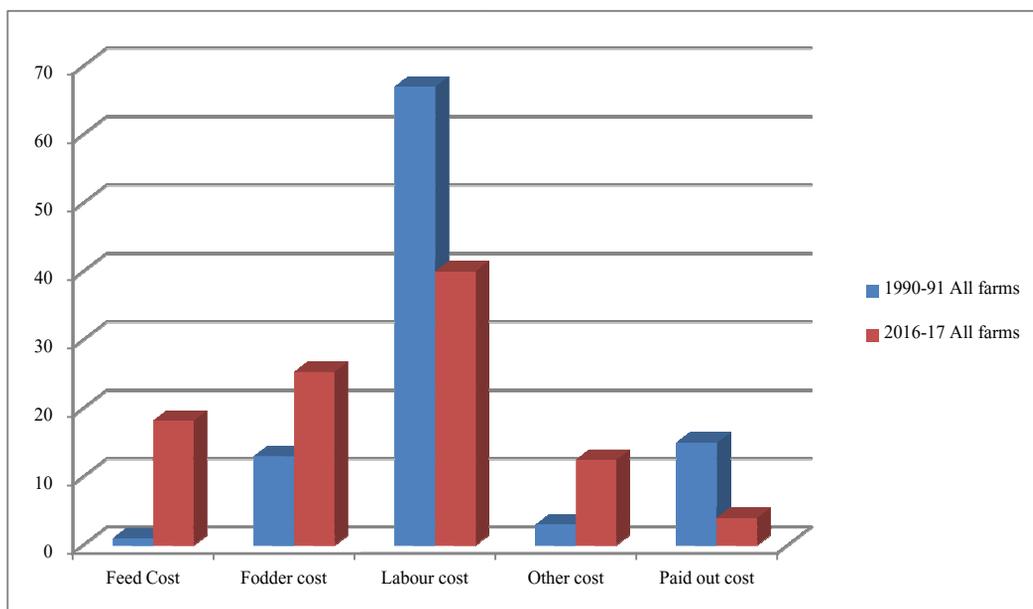


Figure-6.6: Cost of Livestock Rearing

6.15 LIVESTOCK PRODUCTION

The important livestock product for which quantity is estimated in Table 6.15 includes milk, milk products, meat and mutton, wool and dung. On average farm annual milk production is estimated to be 53 litres and the same varies from 51 litres on marginal farms to 83 litres on small farms. The drastic change in milk production is directly related to the less care by Malanis to rear cattle's mainly cows for home requirements. The main reason behind this is the availability of branded milk in number of village shops. During

last 25 years, 86.95 percent change in milk production has been observed. Similarly, the production of butter milk has reduced from 296 litres in 1990-91 to 11 litres in 2016-17. The production of ghee is reduced to 1 litre. However, the production of various dairy products is positively related to the size of farms (Table 6.15).

Table-6.15: Livestock Production

(Qty/farm/annum)

Sr. No.	Products	1990-91	2016-17			Percentage change
		All farms	Marginal farms	Small farms	All Farms	
1.	Milk (Ltrs)	406	51	83	53	-86.95
2.	Butter Milk (Ltrs)	296	11	16	11	-96.28
3.	Ghee (Kgs)	12	1	4	1	-91.67
4.	Meat & Mutton (Kgs)	28	67	152	74	164.29
5.	Wool (Kgs)	26	38	158	48	84.62
6.	Dung (Qtls)	20	125	65	120	500

Source: Own field survey

It is interesting to note that production of meat and mutton has increased from 28 kgs in 1990-91 to 74 kgs in 2016-17. As the number of sheep and goats increased the wool production has also increased and simultaneously quantity of dung has also increased from 20 quintals to 120 quintals. The average quantity of meat and mutton produced varies from 67 kgs on marginal farms to 152 kgs on small farms. On the average farm, 48 kgs wool is produced annually. Dung quantity produced is on lower side (i.e.120 quintals on average farms) due to large scale grazing of animals and very small numbers of animals on stall feeding.

6.16 GROSS RETURNS FROM LIVESTOCK

The major returns from livestock includes the sale of animals mainly of sheep and goats which gives an annual income of Rs. 22,143 on average farm and same is reported more (Rs. 42,200) on small farms. The figures presented in Table 6.16 indicates that gross returns from livestock during last decades have shown a tremendous growth i.e. gross returns have increased from Rs. 7,457 in 1990-91 to Rs. 71,419 in 2016-17. The imputed value of milk has shown an increase of Rs. 2,671 during 1991 to 2017. The value of wool produced has also increased from Rs.910 to Rs. 18,269 during the same period. Out of total gross income, meat and mutton products account for larger share (37.74%) followed by the sale of animal (31.00%), wool (25.58%) and milk and its products (14.71%). A similar type of trend has also been observed on different categories of farms. Overall

gross returns from livestock rearing are positively related to the size of farms (Table 6.16).

Table-6.16: Gross Returns from Livestock Rearing

(Rs./farm/annum)

Sr. No.	Particulars	1990-91	2016-17			Percentage change
		All farms	Marginal farms	Small farms	All farms	
1.	Sale of Animal	2411	20500	42200	22143	818.41
2.	Milk	2029	2550	4150	2671	31.64
3.	Butter milk	148	110	160	114	-22.97
4.	Meat & Mutton	846	24589	55784	26951	31.86
5.	Ghee	975	545	2180	669	-31.38
6.	Wool	910	14744	61304	18269	1907.58
7.	Poultry	-	-	-	-	-
8.	Dung	138	625	325	602	336.23
9.	Total	7457	63663	166103	71419	857.74

Source: Own field survey

6.17 NET RETURNS FROM LIVESTOCK REARING

On different categories of farms, net returns are presented in table 6.17. On the average farm, net returns calculated on the basis of paid-out cost are Rs. 68,821 per annum while the same is Rs. 6,163 on the basis of total cost of rearing. The net returns per standard animal unit on both the cost concepts are negatively related to the size of farms, while returns on paid-out cost per standard animal units are positively related to the size of farms (Table 6.17). On average farm net returns from per animal unit account for Rs.387 and the same varies from Rs.129 on small to Rs.462 on marginal farms.

Table-6.17: Net Returns from Livestock Rearing

(Rs./farm/annum)

Sr. No.	Items	1990-91	2016-17		
		All Farms	Marginal farms	Small farms	All Farms
1.	On paid out cost	6430	61163	162303	68821
2.	On total cost	1680	6167	6099	6163
3.	Returns/Standard animal unit:				
	-On paid out cost	750	4578	3431	4320
	-On total cost	196	462	129	387

Source: Own field survey

6.18 STATUS OF ANIMAL HUSBANDRY

The animal husbandry has proven to be an appropriate and economically viable enterprise in Malana. It is economically viable and also sustainable in view of climatic and geographical conditions. The villagers have the full access to fodder from support land. Sufficient area of pasture and grazing land belonging to the public are available to the inhabitants of Malana. In 1990-91 an average family was earning a net return of Rs. 6430 per annum on paid out cost. On the basis of total cost average income received by Malanis varies from Rs. 1278 to Rs. 6447 per annum from animal rearing. At present, i.e., 2016-17, the net income on paid out cost generated by animal rearing varies from Rs. 61163 to Rs. 162303 on marginal and small farms respectively. On an average farm, per standard animal unit is worked out to be Rs. 4320 and it is estimated to be Rs. 4578 on small farms (See Table 6.17). However, in recent decades the productivity of support land products, mainly of grass has declined to a great extent. The rapid growth of animal population may be one of the reasons. Unscientific use of common land products is also responsible for the decline of productivity. The main indicators for making this enterprise viable and sustainable are: (i) improvement in animal breeds (ii) control grazing on pasture land; (iii) plantation of fodder trees and grasses on private support land and (iv) encouragement for stall feeding and proper health care.

6.19 PLANTS/TREES WEALTH

Out of total trees maintained by Malanis, 51 percent are grown on the border and path of cultivated fields. More than 41 percent plants are grown on grassy land (Ghasni) and remaining 8 percent tree wealth is on barren land of Malanis (Table 6.18). On an average, each household is maintaining 16 trees of different kinds. In Himachal Pradesh, each household was maintaining 134 trees of different species on their farmland during 1990-91.⁵¹ According to this study, the number of trees maintained by Himachalis has increased to more than 77 percent. The number of trees owned by different farmers is positively related to the size of holdings (Table 6.18).

⁵¹ D.V. Singh and B.K. Sikka, Wood Balance Study Himachal Pradesh, Agro-Economic Research Centre, H.P. University, Shimla (Mimeo), 1991.

Table-6.18: Plants/Trees Wealth

(Numbers)

Sr. No.	Type of Plants	1990-91	2016-17			Percentage Change
		All farms	Marginal farms	Small farms	All Farms	
1.	Nos of Plants/trees:					
	Fruit	332	100	360	460	38.55
	Fodder	827	1904	313	2217	168.08
	Timber	164	912	139	1051	540.85
	Fuel wood	313	1195	220	1415	352.08
2.	Plants/Trees Grown on:					
	Boarder & Path	978	2010	605	2615	167.38
	Grassy Land (Ghasni)	658	1809	312	2121	222.34
	Barren Land	-	292	115	407	-
	Total trees/plants	1636	4111	1032	5143	214.36
3.	No. of trees per farm	9.6	14.03	4300	16.22	68.96

Source: Own field survey

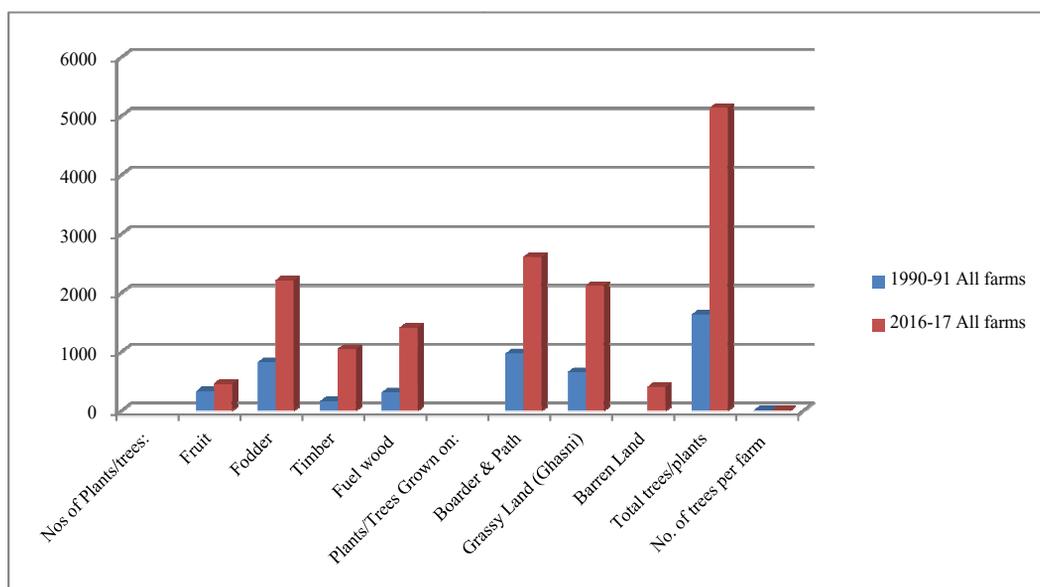


Figure-6.7: Plants/Trees Wealth

Among the type of trees maintained by Malanis, fodder trees account for more than 43 percent followed by fuel wood trees (27.5 percent), timber trees (20.4 percent)

and fruit trees account for 9 percent only. In 1990-91 the situation was different from the present position as fruit and fuel wood trees were accounting for about 20 percent while the share of fodder trees were more than 50 percent. The share of timber trees has increased to 20 percent in 2016-17 from 10 percent in 1990-91. The marginal farmers are maintaining more fodder, fuel wood and timber trees as compared to small size of farmers (Table 6.18). However, on marginal farms, the proportion of fruit trees has declined from 20 percent in 1990-91 to 2 percent in 2016-17 while the ratio of fruit trees maintained by small farmers is about 35 percent. The overall results depict that timber trees recorded the highest growth during 1990-91 to 206-17.

6.20 PRODUCTION FROM SUPPORT LAND

Agricultural support land mainly includes pasture and forest lands which are not cultivated for social and legal reasons. In other words, support land is defined as a piece of the land base which helps directly or indirectly the production base as well as the process of production on agricultural land. In mountain regions, support land provides various inputs to the agricultural production and products to the inhabitants. The returns from support land received by rural people of Himachal Pradesh during 1990-91 were estimated to the worth of Rs. 6,65,100. Out of total gains, fodder, fuel-wood, timber, herbs and other items account for 65.05 percent, 24.61 percent, 9.45 percent, 0.88 percent, and 0.01 percent respectively.⁵² The share of support land products in household income is estimated to be 37 percent in general and 41 percent in tribal areas of Himachal Pradesh.

⁵² D.V. Singh, Agricultural Support Land; Perspectives and Issues in Himachal Pradesh, Status Paper, ICIMOD, Kathmandu, Nepal, 1992.

Table-6.19: Production from Support Land

(Qty/farm/annum)

Sr. No.	Products	1990-91	2016-2017		
		All farms	Marginal farms	Small farms	All Farms
1.	Animal fodder:				
	-Wild Grass	24.20	35.04	52.11	36.33
	-Tree Leaves	15.10	20.50	33.04	21.45
2.	Wood:	-			
	-Fuel Wood	50.28	62.14	84.16	63.81
	-Timber Wood	10.44	18.12	26.04	18.72
3.	Wild Vegetables	13.53	22.02	34.09	22.93
4.	Wild Mushrooms (Guchhi)	0.59	0.73	0.94	0.75
5.	Herbs:	-			
	-Dhoop	18.88	26.72	41.05	27.80
	-Karu	2.59	5.04	7.11	5.20
	-Patish	0.29	0.40	0.53	0.41
	-Dorighash	178.62	15.12	10.04	14.73
	-Singdi	14.49	20.04	24.08	20.35
	-Lehsoon (wild garlic)	-	5.00	10.02	5.38
	-Nag-chhatri	-	4.00	6.00	4.15
6.	Honey	-	2.00	4.00	2.15

*Source: Own field survey**Note: 1. Fodder & Fuel wood = Qtls, Timber = Cft, Food items and herbs = kgs, 2. Sun dried quantity*

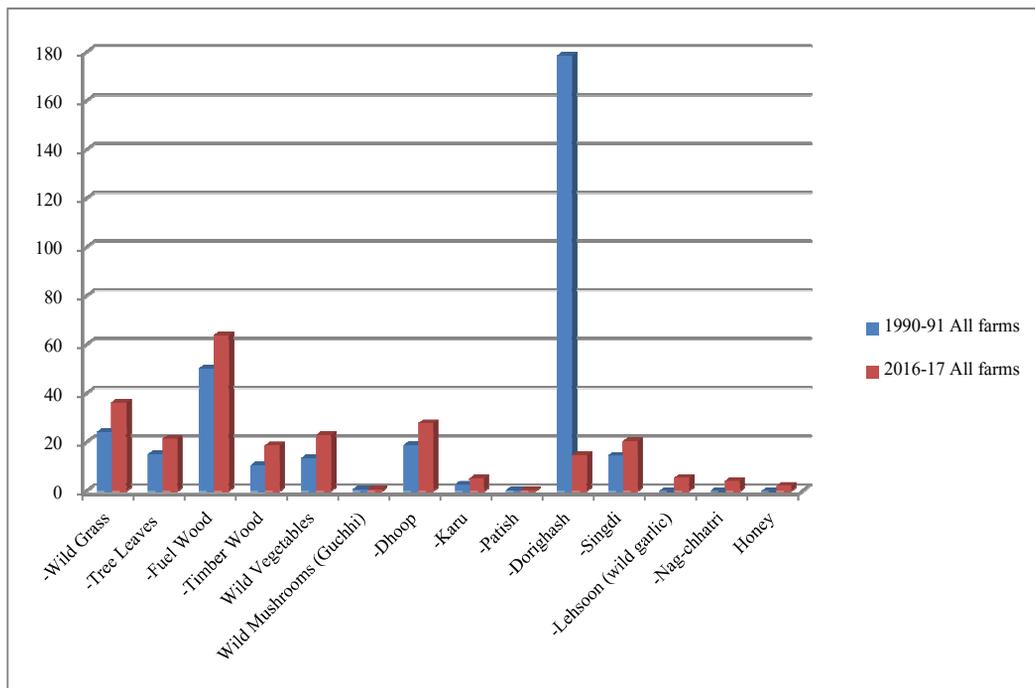


Figure-6.8: Production from Support Land

In Malana village, production from private support land and receipt from public support land is summarized in Table 6.19 in which main products includes, fodder, fuel-wood, timber, wild vegetables and medicinal plants (herbs). An average family is reported to be getting 36.33 quintals of wild grass, 21.45 quintals of tree leaves, 63.81 quintals of fuel wood and 18.72 quintals of timber per annum. 22.93 kgs of low cost wild vegetables are also received by Malanis in addition to 2.15 kgs of honey – a high value food item per annum (Image6.4). An average family is estimated to be getting 78.02 kgs of different kinds of medicinal herbs annually from support land. This quantity varies from 76.32 kgs on marginal farms to 176.85 kgs on small farms. A similar type of trend has also been observed in production and receipt of other support land products on different categories of farms. Almost all Malanis are getting a lot of money by collecting the output of banned herb cannabis (bhang) from public support land (forest) annually. It must be mentioned that it is not possible to collect/gather quantitative information on this herb growing extensively in Malana territory. In addition to above, Malanis are also cultivating cannabis on arable land.



Image-6.4: Honey production in dwelling house of Malana

6.21 SOURCE OF SUPPORT LAND PRODUCTS

The main source of NTP both private public support land in the form of pastures and forests. On an average farm, out of the total quantity of fodder received i.e. 39.30 quintals, 70 percent is from public support land and remaining from private support land. Out of 63.81 quintals of the sundried quantity of fuel wood, 56.12 quintals are received annually from public support land which is estimated to be 88 percent of the total quantity. During 2016-17 the timber wood was reported to be received mainly from public support land (90%); meaning thereby that Malanis are mainly dependent on public support land for their timber requirement (Table 6.20). Seventy six percent of food items are received from public support land and for medicinal herbs such dependence is 95 percent. All this supports and validates the hypothesis that tribal people in mountain regions are highly dependent on common pool resources i.e. on public support land. During 1990-91 similar type of trend was observed. At that time 100 percent timber and 99 percent fuel wood was obtained from public support land.

Table-6.20: Sources of Support Land Products

(Qty/farm/annum)

Sr. No.	Products	1990-91			2016-17		
		All Farms			All Farms		
		From Private Support Land	From Government Support Land	Total	From Private Support Land	From Government Support Land	Total
1.	Fodder :						
	- Wild grass & leaves	15.48 (39)	23.82 (61)	39.30 (100.0)	17.33 (30)	40.45 (70)	57.78 (100.0)
2.	Fuel wood	0.30 (1)	49.98 (99)	50.28 (100.0)	7.69 (12)	56.12 (88)	63.81 (100.0)
3.	Timber	-	10.44 (100.0)	10.44 (100.0)	1.87 (10)	16.85 (90)	18.72 (100.0)
4.	Food items	3.53 (25)	10.59 (75)	14.12 (100.0)	5.69 (24)	17.99 (76)	23.68 (100.0)
5.	Herbs & Medicinal Plants	38.00 (18)	176.87 (82)	214.87 (100.0)	4.01 (5)	76.16 (95)	80.17 (100.0)

Source: Own field survey

Note. 1. Figure in brackets denote percentage of respective totals
2. Fodder, fuelwood = Qtls, Timber = Cft, Food items & herbs=kgs.

6.22 SOURCE-WISE RETURNS FROM SUPPORT LAND

On average farm, annual returns from support land are estimated to be Rs.3,89,164 and out of that public support land, contributes about 92 percent (Table 6.21).

Table-6.21: Source-wise Gross Returns from Support Land Production/ Collection

(Rs./farm/annum)

Sr. No	Products	1990-91			2016-17		
		All Farms			All Farms		
		From Private Support Land	From Government Support Land	Total	From Private Support Land	From Government Support Land	Total
1.	Fodder:						
	-Wild grass & leaves	357	549	906	3466	8090	11556
2.	Fuel wood	15	1493	1508	769	5612	6381
3.	Timber	-	940	940	18696	168500	187196
4.	Food items	7	705	712	5690	17990	23680
5.	Herbs & Medicinal Plants	38	990	1028	8031	152320	160351
6.	All Products	417	4677	5094	36652	352512	389164

Source: Own field survey

Among the total returns, major contribution (95%) comes in the form of timber followed by herbs and medicinal plants (90%). The average family is reported to be getting, fodder, fuel wood and food items to the worth of Rs. 11,556, Rs. 6,381 and Rs. 23,680 respectively. However, major source of family income is from the collection of the output of cannabis (bhang).

6.23 COST AND NET RETURNS FROM SUPPORT LAND

On an average farm, the annual net returns are estimated to be Rs.3,35,764 and the same are positively related to the size of farms (Table 6.22). The total annual cost of production and collection varies from Rs. 52,500 on marginal farms to Rs. 66,000 on small farms; average being Rs. 53,400. The gross returns are estimated to be more on small farms and the net returns are significant on marginal farms. All this suggests that lot of change in the receipt of family income from support land has happened.

Table-6.22: Cost and Returns from Support Land Production/Collection

(Rs./farm/annum)

Size of Farms	1990-91			2016-17		
	Cost of Production/Collection	Gross Returns	Net Returns	Cost of Production/collection	Gross Returns	Net Returns
Marginal	2712	5418	2706	52500	377912	325412
Small	3251	4550	1299	66000	526536	460536
Medium	5870	6798	928	-	-	-
Overall	2970	5094	2124	53400	389164	335764

Source: Own field survey

Note: 1. No any farmer in medium category
2. Cost and returns are exclusive of banned narcotic product.

6.24 THE ISSUE OF ILLEGALITY OF CANNABIS AS A COMMON POOL RESOURCE

In the course of these 25 years, since the earlier study in 1992, the conflict between the Malanis and the law keeping agencies has become a disturbing phenomena as frequent police raids destroying large tracks of standing cannabis crops has become a part of this village life. Understanding the vitiating impact of such raids on the psyche of the villagers, especially on the young illiterate children, and on the environment, and biodiversity is not difficult.

At the root of this conflict are the almost un-negotiable position that the villagers appear to have taken by sticking to the activity in the big way as an important source of income provided by natural endowment, and the legal position of the Government under Narcotics Control Act's position that the narcotic substance *bhāng* derived from cannabis plant, which otherwise is considered a horticultural crop with produces of fibre and seeds, is prohibited and cannot be harvested commercially until it is regularised. This leads to the anomalous punitive bonfire of cannabis plant along with all produce only because from their leaves this banned substance is extracted.

One finding of the study of Malana village is that the people of the area need an alternative development strategy suitable to their socio-economic and environmental endowments. Or alternatively create enabling legal and economic protocol to make cannabis cultivation a legally recognized horticultural activity in view of its proven productivity and profitability.

In addition, it must be recognized that this area has very little scope for any other agricultural and horticultural produce based development which can find buyers at their door steps, except *bhāng* which has gone well with the emergence of this area as tourism and commercial hub. In view of this reality, this nature-gifted resource should be permitted to be used for the profit and prosperity

of the village with dignity. The world famous substance *Malana cream*, as this narcotic product has gained fame among its consumers and smuggling traders, should be regularized in the interest of the farmers of the village, and turning the massive illegal trade into legitimate chain of activities giving income and employment opportunities to large number of people engaged in its farming as labour, as investors, resource agents, and trading.

The study team took the views of field and regional officials of Narcotics Control Bureau into account for understanding the legal point of view in this regard. The field officers in Mandi District, and the Zonal Office at Chandigarh held the view that despite the crop being horticulture in categorization, owing to the narcotic substance it comes under Narcotics Control Act. As per Narcotic Drugs and Psychotropic Substances Act, 1985, there is special provision related to cannabis, “*Notwithstanding anything contained in section 8, Government may, by general or special order and subject to such conditions as may be specified in such order, allow cultivation of any cannabis plant for industrial purpose only for obtaining fibre or seed or horticultural purpose*”.⁵³ Second, the only solution to the conflict between the local villagers and the law keeping agencies is regularization of cannabis farming including extraction of the narcotic substance. Thirdly, for any step towards this, the beginning point would be getting the entire issue examined by an Empowered Committee for recommending actions for making necessary legal and administrative changes for regularizing cannabis cultivation and creating an enabling protocol for its farming, business and industry activity chains. This may then empower the Government issue necessary orders under the existing provisions without the need for separate legislation.

6.25 STATUS OF SUPPORT LAND PRODUCTION

In Malana, support land production is very crucial for the survival of other enterprises as it acts as complementary to the major enterprise (animal husbandry) of Malanis. Now, due to high pressure on support land, the productivity is rapidly declining and with the present rate of extraction/exploitation, this enterprise will become unsustainable for future generations. To maintain the economic viability and sustainability of this support land, social and legal steps are urgently needed to be adopted. On the basis of present study some of the imperatives feasible are; (i) change in social and legal sanctions for the extraction and exploitation of public support land products, (ii) reduction in over grazing and encouragement to cut and carry feeding, (iii) improvement in productivity of private support land

⁵³ The Narcotic Drugs and Psychotropic Substances Act, 1985 (61 of 1985), Bare Act with Short Notes 2010, Universal Law Publishing Company Private Limited.

(iv) reduction of pressure on public support land and (v) legalization of extraction of banned support land products on scientific terms.

6.26 SUBSIDIARY ENTERPRISES

Earlier the main subsidiary enterprises performed by Malanis were tourism, trekking and small scale cottage industries. But now they have completely shifting towards new enterprises. In entire Malana Territory, local people are performing number of subsidiary enterprises like taxi service for tourists, the establishment of way side hut restaurants and organizing trekking tour and tent house for night stay etc. These enterprises are contributing significantly to household income. They are employing number of workers on monthly salary for managing these restaurants as well. But for the study team it was very difficult to enumerate the establishment and running costs of these enterprises. Even earning from these sources was not disclosed by the Malanis. Therefore, it was not possible to work out per farm, per capita and per worker earnings from subsidiary enterprises. In 1990-91 also, Malanis were earning income from these resources but the amount was negligible then (See Table 6.11).

6.27 RETURNS FROM SUBSIDIARY ENTERPRISES

The main subsidiary enterprise performed by Malanis is the collection of herbs/medicinal plants from public support land. Other enterprise comprises tourism including the establishment of hotels and restaurants for particularly distant tourists. From these two enterprises, people earn a handsome income. Along the kachha footway linking the old Malana village there are 11 restaurants. It is a 3 kms footway distance. However, these restaurants are owned by Malanis but employed workers from outside Malana are managing these restaurants on the monthly salary. Each worker is getting a monthly salary of Rs. 10,000/-. Each restaurant is employing at least two workers on monthly basis. During the month of October and November every year, all adult family members and even school going children participate in the collection of high value herbs output from public support land. Within two months they earn a lot of money from the sale of 'banned herbs' which of course supplements the annual family income.

6.28 STATUS OF FARM IMPLEMENTS

Since the use of bullock power in crop production is completely abandoned, the number of bullock drawn implements is negligible. All the cultural practices of crop production are performed by human labour. The number of minor implements owned by average household worked out to be 16.5 (Table 6.23). Out of total implements owned by Malanis all are minor implements. During last 25

years the share of minor implements was 17.41 percent and major implements accounted for 82 percent and bullock drawn implements for 0.64 percent. At present no bullock drawn implement is available with Malanis. The increase in minor implements includes; kudali, spade, kassi, gainti, jhabal, drat and sickle. These types of implements are required mostly for the purpose of collection of minor support land products. They are used by human labour in field operation. As far as farm machinery is concerned no Malani is having any kind of small or big machinery. However, number of Malana families have own non-farm machineries i.e. mostly electricity operated small machineries for domestic/building construction and furnishing purposes.

Table-6.23: Status of Farm Implements and Machinery

Sr. No.	Particulars	1990-91	2016-17			Percentage change
		All Farms	Marginal farms	Small farms	All farms	
1.	Human Drawn Implements					
2.	Minor Implements	433	4615	607	5222	1106.00
3.	Major Implements	2053	-	-	-	
4.	Bullock Drawn Implements	16	-	-	-	

Source: Own field survey

Note: Minor implements includes; Kudali, Spade, Kassi, Gainti, Jhabal, Axe, Drat, Drati, Sickle.

6.29 LABOUR FORCE AND OCCUPATIONAL PATTERN

The details of information presented in Table 6.24 reveal that from 1990-91 to 2016-17, the dependency ratio has increased from 0.77 to 0.99 due to the decrease in the labour force from 56.4 percent to 50.13 percent of total population in respective years. Interestingly, male population is more dependent (1.01 DR) constituting 69.8 percent of the total labour force than 50.46 percent of the female labour force during 2016-17. Out of total labour force, male worker accounts for 49.85 percent and female 50.15 percent during 2016-17.

Table-6.24: Labour Force and Occupational Pattern

(Numbers)

Sr. No.	Activities	1990-91			2016-17		
		Male	Female	Total	Male	Female	Total
1.	Agriculture + Animal Rearing	99	100	199	321	331	652+11*
2.	Animal Rearing	34	19	53	81	33	114+13*
3.	Agri+AnimalRe.+Herbs collection	52	84	136+35*	38	67	105+15*
4.	Agri.+Herbs collection	12	15	27	27	40	67
5.	Casual labour +Herbs collection	45	27	72	22	21	43
6.	Service+Business	14	2	16	3	3	6
7.	Total Labour Force	256	247	503+35*	492	495	987+39*
8.	Average labour force	1.51	1.45	2.70	1.55	1.56	3.11
9.	Labour Force as % of total population	51.6	53.9	56.4	49.80	50.46	50.13
10.	Dependency Ratio	0.94	0.85	0.77	1.01	0.98	0.99

*Source: Own field survey***Children*

In 1991, 37.82 percent labour force was engaged in crop production along with animal rearing activity and this figure had increased to 66 percent in 2016. 11.55 percent workers are specially engaged in animal rearing occupation. The ratio of female workers is observed to be more in crop production and herb collection. A significant number of female workers are observed to be engaged in casual labour work, though the share is only four percent.

6.30 MAN POWER UTILIZATION

Average labour force on different sizes of farms varies from 3.62 units (man equivalent) on marginal farms to 5.79 units on small farms. On the average farm, out of 490 labour days spent by a male worker during a crop year, 181 days are devoted to gainful work while the remaining time in equally important social and family affair activities. female worker is reported to be devoting 556 days (8 hours/day) in a year and out of that 359 days are spent on social and family affairs. The trend of female labour employment in Malana is almost similar to that of other hilly areas, where total female employment worker out to be more as

compared to male workers.⁵⁴ In Malana children below 15 years are also devoting significant labour (247 days/annum) in different activities. However, their gainful work accounts for 39 days only. A similar type of trend is observed on different sizes of farms (Table 6.25). It is noticed that the quantum of farms work is positively related to the size of the farm. On the whole child and male and female labourers are devoting more time on small farms.

Table-6.25: Man Power Utilization

(days/annum)

Sr. No.	Particulars	1990-91	2016-17			Percentage change
		All farms	Marginal farms	Small farms	All farms	
1.	Crop Production:					
	Male	15	20	42	22	46.67
	Female	16	18	45	20	25.00
	Children	11	10	22	11	0.00
2.	Herbs Collection:					
	Male	9	20	25	20	122.22
	Female	11	30	40	31	181.82
	Children	10	15	20	15	50.00
3.	Fodder & Wood Collection					
	Male	35	40	55	41	17.14
	Female	61	70	80	71	16.39
4.	Tending of Animal					
	Male	45	20	50	22	-51.11
	Female	68	30	57	32	-52.94
	Children	56	12	20	13	-76.79
5.	Grazing of animal					
	Male	52	60	70	61	17.31
	Female	30	30	41	31	3.33
6.	Labour Hired out					
	Male	39	-	-		
	Female	3	-	-		
7.	Service & Business					
	Male	9	15	16	15	66.67
	Female	-	12	15	12	-
8.	Social & Family Affairs					

⁵⁴ J.P. Bhati & D.V. Singh, Women's Contribution to Agricultural Economy in hill Regions of North-West India, Economic and Political Weekly, Vol. XXII, No.17, Review of Women Studies, 1987.

	Male	210	300	420	309	47.14
	Female	211	350	470	359	70.14
	Children	220	200	312	208	-5.45
9.	Total Days/Worker					
	Male	414	475	678	490	18.60
	Female	400	440	748	556	39.00
	Children	297	237	374	247	-16.84
	Total	1111	1152	1800	1293	16.38

Source: Own field survey

*One day = 8 hours.

6.31 COMPONENTS OF EMPLOYMENT

The components of employment include crop production, animal rearing, support land production/collection, the sale of labour, business/service and social and family affairs. On the average farm, total employment equivalent to standard man days worked out to be 1030.5 per annum while the total days spent by male, female and children together are 1293 days per annum. Out of total days spent on average farm 490 (38%) days, 556 days (43%) and 247 days (19%) are devoted by male, female and child workers respectively. Under different components of employment, social and family affairs account for more than 67 percent share (Table 6.26). Animal rearing accounts for 12.30 percent and support land production/collection for 5.1 percent of total employment. Employment through hiring out of labour is negligible while service and business accounts only 2 percent. Component wise employment on marginal and small farms by both male and female workers is found to be different. In sex-wise contribution female labour has reported more (41%) followed by the male worker (35%) in social and family affairs (Table 6.26).

Table-6.26: Components of Labour Employment on All farms

(Percentage)

Sr. No.	Activities	2016-17			Per farm man equi. days		Percentage change
		Male	Female	Children	1990-91	2016-17	
1.	Crop Production	22 (4.50)	20 (3.60)	11 (4.45)	40.04	42.50	5.20
2.	Herbs Collection	20 (4.08)	31 (5.56)	15 (6.07)	26.9	50.75	88.66
3.	Fodder & wood Collection	41 (8.37)	71 (12.77)	-	119.9	94.25	-21.39
4.	Tending of Animals	22 (4.50)	32 (5.76)	13 (5.26)	147.6	52.50	-64.43
5.	Grazing of Animals	61 (12.45)	31 (5.57)	-	111.4	84.25	-26.35
6.	Labour Hired out	-	-	-	62.4	-	-
7.	Service & Business	15 (3.06)	12 (2.16)	-	12.8	24.00	87.5
8.	Social & Family Affairs	309 (63.06)	359 (64.57)	208 (84.21)	569.2	682.25	19.86
9.	Total Employment (days/Farms)	490 (100.0)	556 (100.0)	247 (100.0)	1090.5	1030.50	-5.50

Source: Own field survey

Note: Figure in brackets denotes percentage of respective totals.

Per farm man-equivalent man days spent in crop production activities are 42.5 days while the herbs collection accounts for 50.75 days in a year. Fodder and fuel-wood collection accounts for 119.9 days and grazing of animals 84.25 days. The labour spent in tending of animal ranked second (52.50 days) to social and family affairs (682.25 days) during a crop year. On the average farm, 24 days are spent on service and business activities. All this suggest that less labour spent on crop production activities may be due to the peculiar type of cultural practices and cropping pattern prevailing in the area as compared to other hilly regions of the state.⁵⁵

6.32 EXTENT OF UNEMPLOYMENT

The status of employment in Manana village was examined by using time criterion, which determines employment or underemployment of a person on the basis whether he worked less than 8 hours a day or 25 days in a month or 300 days in a year.

In 1991 the table show that the per day per household standard mandays was 2.70, which increase to 3.79 standard mandays in 2016-17. On the basis of this total annual mandays available and utilized in different activities were worked out for 1990-91 and 2016-17. From this the comparative extent of unemployment or employment were arrived.

This analysis shows that over employment in the village was to the extent of (-) 34.69 percent in 1991, which indicates that socio-economic circumstances dictating an average household to put in more work hours. As compare to this in 2016-17 the extent of underemployment was (+) 9.32 percent, which signifies average household putting in less work hours than available with them (Table 6.27).

⁵⁵ D.V. Singh & J.P. Bhati, Manpower Utilization in a Hilly Region of India, Agricultural Situation in India, October 1985.

Table-6.27: Extent of Unemployment among Malanis

Sr. No.	Particulars	1990-91	2016-17
1.	Per day Per Household Average Mandays available	2.70	3.79
2.	Per Household Total available annual mandays	810 (100)	1137 (100)
3.	Total mandays utilized in different activities	1091 (134.69)	1031 (90.68)
4.	Extent of unemployment According to time criterion	-281 (-34.69)	106 (9.32)

Source: Own field survey

6.33 HOUSEHOLD DURABLES

A sea change has been noticed in the possession of household durables during 1991-2017. During 1981 Survey⁵⁶ the only durables owned by Malanis were radio/transistor (34), watches (17), sewing machine (3) and a coat. In the present survey, drastic changes are observed with regard to the possession of almost all type of modern durables. Every family is having at least one mobile phone of good configuration. At present there are 317 households in Malana, possessing 322 mobiles. Malana has two satellites Towers which were installed in 1996-97. Every family has luxurious furniture. During 1991 survey it was found that no family was possessing steel box rather there were wooden boxes; 280 in all. But now the numbers of steel boxes possessed by the Malanis have increased (Table 6.28).

⁵⁶ Socio-Economic Survey of Village Malana, Department of Economics and Statistics, Himachal Pradesh, Shimla, 1981.

Table-6.28: Status of Household Durables

(Numbers)

Sr. No.	Items	1990-91	2016-17	Change Indicators
		All farms	All farms	
1.	Radio/Transistor/TapeRecorder	75	144	Improvement in living standard
2.	Mobile	1	322	-do-
3.	Television	-	320	Increase in family income as well as installation of satellite Towers
4.	Watches	177	120	Use of mobile facilities
5.	Pressure cooker	112	496	Better living standard
6.	Sewing Machine	55	28	-do-
7.	Furniture	28	1909	Increase in living standard
8.	Khaddi	60	58	Availability of synthetic and other fibre
9.	Wooden Box	280	153	Better living standard
10.	Steel Box	-	267	-do-

Source: Own field survey.

With the introduction of modern clothes and other clothing material, the numbers of *khaddi* have reduced to 58 from 60 during the last 25 years in spite of the tremendous increase in households in Malana. The information about *Khaddi* (handloom) and wooden box was not recorded during 1981 survey. During June 1991 survey conducted by this department it was recorded that different kinds of household durables including television (1) radio/transistor/tape recorder (75), watches (177), pressure cookers (112), sewing machines (55), furniture (20), *Khaddis* (60) and wooden boxes (280) were possessed by Malanis. At present every family has all types of modern durables (Table 6.28), including good quality television with satellite dish etc. Earlier no Malani had television, but now there are 320 television sets. All this indicates that living standard of Malanis has changed significantly during the last decade (Image6.5). The possible indicators of change recorded in Table 6.10 suggest that increase in the family income is the main reason for possessing of modern durables.

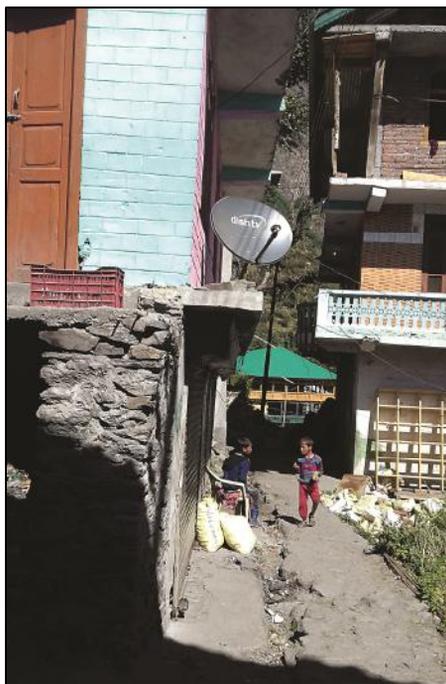


Image-6.5: Television dish in village Malana

6.34 FAMILY INCOME

The main source of household income in Malana is support land products. But quantification of main income from one high value low volume product mainly from public support land is not possible. Nobody in Malana is willing to disclose the source and quantum of revenue earned from cannabis product. Generally all the families in Malana remain engaged in harvesting cannabis(bhang). One can see cannabis seeds spread on their roof tops (Image 6.6). This product is mixed with wheat flour for making chapattis during the winter season, which keep body warm. The second important source of family income is sheep rearing. This activity gives meat and mutton for home consumption, and woolen clothes and cash income. In some families, another important source of income is the running of hut restaurants around trekking route of Malana. The other source of household income in Malana includes engaging in non-farm employment along with crop production.

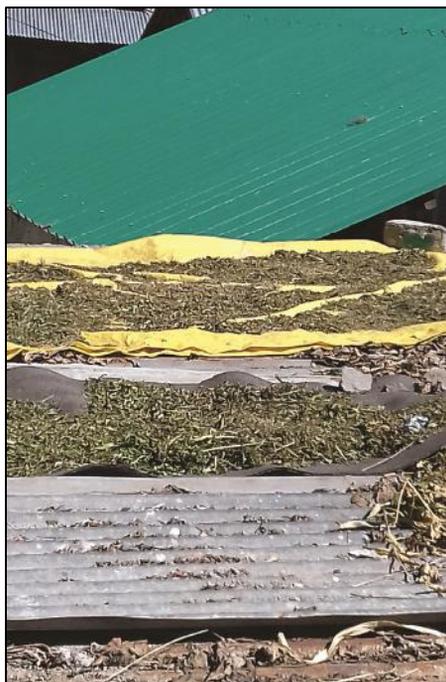


Image-6.6: Drying of cannabis (bhang) seeds on roof tops in village Malana

In the present study the household income generated and enumerated from livestock rearing, crop production, services and sale of human labour is presented in Table 6.29. In this table, the figures presented are exclusive of those incomes which are not enumerated (like income from the sale of banned support land products and running of hut restaurants and tent boarding). During last 25 years, income from crop production has increased from Rs. 2000 to Rs. 5,121; and income from livestock rearing increased many folds from Rs. 7,457 in 1990-91 to Rs. 71419 in 2016-17. The enumerated income from support land also increased in lakhs. It is higher (Rs.5,26,536) on small farms (Table 6.29). The present study has worked out the total gross income; net income and income on paid out-cost and presented in the table. In fact, the information presented in the table is not the factual position of Malanis household income. It was not possible for the researchers to enumerate the hidden income of the Malanis during the field visit.

Table-6.29: Household Family Income

(Rs./farm/year)

Sr. No.	Source	1990-91	2016-17		
		All farms	Marginal farms	Small Farms	All farms
1.	Agricultural Crops	2000	2195.57	40,831.11	5120.66
2.	Animal Husbandry	7457	63,663.00	1,66,103.00	71,419.00
3.	Support Land Products	5094	3,77,912.00	5,26,536.00	3,89,164.00
4.	Subsidiary Enterprises -Tourism* -Business* -Service	3909	491.47	20000.00	1968.45
5.	Total Gross Income	18,460	4,44,262.04	7,53,470.11	4,67,672.11
5.	Total Net Income	5699	3,33,567.64	5,17,454.59	4,39,918.70
6.	Net Income on Paid out cost	16,823	4,41,466.09	7,43,631.36	4,64,342.95

*Source: Own field survey*** It was not feasible to enumerate income from tourism and business of Malanis.*

Malana cannabis economy is, of course, illegal.⁵⁷ The police post on the road down from the village is supposed to prevent the sale and transportation of cannabis resin. At the time of our field visit in Malana during the second week of October 2017, it was noticed that one cannabis crop at maturing stage was standing on arable land and in nearby field crop was destroyed by police officials adjoining to the village (Image6.7&6.8). In the past people believed that the police would not touch them because of it was scared of the power of Jamlu Devta.⁵⁸ Malana has now changed much, despite its hostile image and continuity of the collective ritual and cultural cavity under Jamlu persist in ways that hinder socio-economic dynamism even today.

⁵⁷ The Indian Government's 1985 Narcotic Drugs and Psycho-tropic Substance Act prohibits the production, manufacture, possession, sale, purchase, transportation, warehouses, concealment, use of or consumption of charas (Cannabis resin).

⁵⁸ The invader driven off by a swarm of angry bees sent by Jamlu Devta.



Image-6.7: Cultivation of cannabis (bhang) on arable land in Malana



Image-6.8: Destroyed cannabis crop on arable land by police officials in Malana

6.35 PATTERN OF INCOME, EXPENDITURE AND SAVINGS

The total annual expenditure on home production and consumption for average family is estimated to be Rs. 1,03,255 and 97 percent is kept for home consumption and the remaining for next production. This proportion is less on marginal farms and high on small farms (Table 6.30).

Table-6.30: Pattern of Income, Expenditure and Savings

(Rs./farm/annum)

Sr. No.	Items	1990-91	2016-17		
		All farms	Marginal farms	Small farms	All farms
1.	Gross Income	18,460	4,44,262	7,53,470	4,67,672
	Expenditure:				
	For Home Production*	1630	2796	9839	3329
	For Home Consumption	9943	94,349	1,59,755	99,926
	Total	11573	97,145	1,69,593	1,03,255
2.	Savings**	6687	3,47,117	5,83,877	3,64,417
3.	Value of Household Durables	1372	21,224	29,092	21,820
4.	Per -Capita :				
	Income	3291	74,541	81,810	75,310
	Expenditure	2063	16,300	18,414	16,627
	Savings	1228	58,241	63,396	58,682
5.	Indebtedness		-	-	-

Source: Own field survey

* Paid-out cost only

** Exclusive of hidden income

Annual savings varies from Rs. 3,47,117 by marginal households to Rs. 5,83,877 by small households; average being Rs 3,64,417. Value of household durables possessed by Malanis varies from Rs. 21,224 on marginal households to Rs. 29,092 on small households. On average household, the per capita income, expenditure and savings is worked out as Rs.75,310, Rs. 16,627 and Rs. 58,682 per annum respectively. On the whole per capita income, expenditure and savings observed to be more on small farms as compared to other categories of farms (Table 6.30). The per capita figure shows the positive relationship with the size of farm while marginal farms were showing more in 1990-91. The present study shows that expenditure on home consumption by Malanis has increased from 86 percent to 97 percent during 1991-2017. The gross income has also increased from Rs. 18,460 in 1990-91 to Rs. 467672 in 2016-17. The crop production expenditure during the same period has decreased from 14 percent to only 3 percent. In 1990-91 the value of household durables was Rs. 1372 while the same has increased to Rs. 21820 on average size of household.

6.36 CHANGES IN INCOME, EXPENDITURE AND SAVINGS

During last 25 years, the share of total family income on crop production has decreased from 10.8 percent to 1.1 percent. A similar decreasing trend of income on animal rearing is also observed during the same period (Table 6.31).

Table-6.31: Change in Income, Saving and Investment

(Rs./farm/annum)

Sr. No.	Items	1990-91	2016-17
1.	Income:		
	Agricultural crops	2000	5121
	Animal Husbandry	7457	71,419
	Support Land*	5094	3,89,164
	Subsidiary Enterprises**	3909	1969
	Total	18,460	4,67,672
2.	Investment:		
	Production Expenditure	1630	3329
	Consumption Expenditure	9943	94,631
	Total	11,573	97,960
3.	Savings	6887	3,69,712
	Percapita (Rs.)***		
	Income	3291	75,310
	Expenditure	2063	15,239
	Savings	1228	59,535

Source: Own field survey

* Exclusive of banned herbs

** Exclusive of tourism and restaurant business

*** Exclusive of both the above income.

Because of non-availability of data on subsidiary enterprises, the magnitude of decrease could not be worked out. It is interesting to note that in spite of non-availability of complete data on support land production and collection the share of income on this item has increased from 27.6 percent in 1990-91 to 83.2 percent in 2016-17. The investment on crop production has declined from 14.1 percent in 1990-91 to 3.4 percent in 2016-17. However, consumption expenditure has increased from 85.9 percent in 1990-91 to 96.6 percent in 2016-17. In the present study per capita income, expenditure and savings have also been estimated on the basis of available data (Table 6.31).

6.37 MALANIS DEPENDENCE FOR FOOD AND NON-FOOD ITEMS

For about 68 percent of their requirement for fodder, an average household is depending on support land. The same proportion is reported at the higher percentage on marginal farms and lowers on small farms (Table 6.32). About 78

percent of domestic energy requirement is fulfilled from support land, 13 percent from the market (commercial energy) and 9 percent from own land products.

Table-6.32: Households Dependence for Food and Non-Food Items

(Percentage)

Sr. No.	Particulars	1990-91	2016-17		
		All farms	Marginal farms	Small farms	All farms
1.	Fodder:				
	Owned Land	48.35	30	60	32
	Support Land	51.65	70	40	68
2.	Energy Items:				
	Owned Land	0.56	8	18	9
	Support Land	92.63	80	60	78
	Market	6.81	12	22	13
3.	Food Items:				
	Home Produce	51.80	11	19	12
	P.D.S.	27.95	34	16	33
	Market	19.89	52	63	53
	Support Land	0.36	2	2	2
4.	Non-Food Items:				
	Home Produce	26.59	20	10	19
	Market	73.41	80	90	81

Source: Own field survey

P.D.S = Public Distribution System.

It has been observed that support land products provide relatively larger share on marginal farms. Commercial energy i.e. purchased energy items contributes 22 percent on small farms. The share of home produced food items is observed more (19 percent) on small farms and less on marginal farms (11 percent). The average family is getting 33 percent of their food requirement annually from public distribution system (PDS). Food items purchased from open market accounts for 53 percent. These percentages are positively related to the size of farms (Table 6.32). The support land products contribute insignificant share in food requirement. For non-food items, average Malani is depend for 81 percent of his requirement on market. On marginal farms, home produced non-food items contribute relatively larger share (20%) in total requirement. The similar trend also existed in 1990-91.

6.38 FOOD ITEMS FROM PUBLIC DISTRIBUTION SYSTEM (PDS)

The important food items distributed through Public Distribution System (PDS) include wheat, rice and sugar. Sometime other items like cloth, kerosene, edible oil, pulses and salt are also made available to the Malanis. During 2016-17 an average family in the village was provided with 298 kgs of food grains and 37 kgs of sugar. During 1990-91, the food grain and sugar quantity supplied were 561 kgs and 28 kgs respectively.

Table-6.33: Receipt of Food Items from Public Distribution System (PDS)

(Qty/farm/annum)

Sr. No.	Items	1990-91	2016-17		
		All farms	Marginal farms	Small farms	All farms
1.	Wheat				
	Kgs.	345	184.30	160	182.46
	Rs.	897	1082.42	1242	1094.50
2.	Rice				
	Kgs.	216	117.34	90.00	115.27
	Rs.	974	778.71	805.50	789.98
3.	Pulses				
	Kgs.	-	36	36	36
	Rs.	-	1380	1380	1380
4.	Sugar				
	Kgs.	28	35.76	55.26	37.26
	Rs.	147	858.24	1326.24	894.24
5.	Edible Oil				
	Litrs.	-	24	24	24
	Rs.	-	3216	3216	3216
6.	Salt				
	Kgs.	-	12	12	12
	Rs.	-	48	48	48
7.	Total value of Receipt (Rs.)	2018	7373.37	8017.74	7512.72

Source: PDS shop Malana

Note: - Data not recorded

The main reason of decrease may be attributed to easy availability of the items in the village shops. It was noticed during field survey that the quantity of sugar had increased to 37 kgs through PDS. Significant amounts (about 36 kgs) of different pulses were also provided to Malanis during 2016-17. Equal quantity of pulses was provided to all categories of families. The total cost of these products paid by Malanis was Rs. 7513. The average value of receipt from PDS varies from Rs. 7373 on marginal farms to Rs. 8018 on small farms (Table 6.33). Before the introduction of public distribution system in the village, Malanis were self-sufficient for their food requirement. Though, the qualities of their food items were poor. Now with the introduction of public distribution system superior grains are available to the Malanis and almost all items supplied through PDS are also available in the village shops.

6.39 COMPONENTS OF CONSUMPTION EXPENDITURE

The annual expenditure on food and non-food items for an average Malani family is Rs. 99926 and the same is reported more (Rs.159754) for small families and

Rs. 94349 for marginal families. Out of total family expenditure, more than 55 percent is accounted for food items and the remaining for non-food items. During 1990-91, the expenditure on food items was 75 percent and the remaining 25 percent was on non-food items. At present, about 45 percent of expenditure is accounted for non-food items. The reason for this change may be due to easy availability of different kinds of non-food items in the village shops. On different sizes of families almost similar type of trend is observed (Table 6.34). Among food items, cereals alone accounts for about 36 percent followed by animal products (25%). The reduction of expenditure on animal products from 35 percent to 25 percent is caused by increase in expenses on non-food items. Similar type of trend is also observed on different sizes of farms (Table 6.34). The other food items include pulses, fruits and vegetables, edible oil, sugar, tea and salt also. Among non-food items clothing & footwear alone accounts 22 percent share in total expenditure on these items. The other important non-food items on all sizes of households include pan/beeri/cigarettes. At present time major realms of non-food expenditure include social functions. Non-food items also include expenses on purchased energy items. The purchased energy items accounts for 26 percent of total non-food expenditure.

Table-6.34: Components of Consumption Expenditure

(Rs./farm/annum)

Sr. No.	Items	1990-91	2016-17		
		All farms	Marginal farms	Small Farms	All farms
1.	Food Items				
	Cereals	2644	18689.42	32583.33	19741.32
	Milletes	468	-	-	-
	Pulses	535	4739.59	7695.83	4963.41
	Vegetable & Fruits	312	8400.00	14210.00	8839.87
	Edible Oils	434	3892.83	6470.83	4088.01
	Milk & Milk Products	1786	6222.76	9806.67	6489.74
	Meat & Mutton	816	7000.00	11210.00	7318.74
	Sugar/Gur	261	1200.00	3000.00	1336.28
	Spices	38	600.00	1010.00	631.04
	Tea	146	980.00	1700.00	1034.51
	Total	7440	51724.60	87686.66	55074.17
2.	Non-Food Items				
	Soap & detergents	37	843.34	1333.33	880.44
	Purchased Energy items*	196	10942.66	18787.50	11536.59
	Pan, Biri, Tobacco	310	1200.00	2610.00	1306.75
	Medical care	142	6000.00	9550.00	6268.77
	Clothing	1252	7528.33	10675.00	7765.56
	Foot Wears	250	2000.00	4200.00	2166.56
	Education and recreation	214	2110.00	5412.00	2359.99
	Social functions	102	12000.00	19500.00	12567.82
	Total	2503	42624.33	72067.83	44851.73
3.	Grand Total	9943	94348.93	159754.49	99925.90

Source: Own field survey.

* Includes L.P.G, Kerosene and Electricity

-use abandoned

6.40 PER CAPITA CONSUMPTION

Cereals are the main staple food of the Malanis. The per capita consumption of cereals worked out to be 158.95 kgs per annum. The quantity of this item is reported more on small farms (Table 6.35). In 1990-91 Malanis were also using small millets (3kgs) under their staple food. Now they have shifted toward superior grains available in the market. The per capita consumption of pulses in Malana is around 8kgs per annum which is far below the standard requirement. On an average, each Malanis is consuming 24.46 kgs of vegetables and 4 kgs of fruits annually. The milk consumption is reported to be 9.88 litres and this

quantity varies from 9.84 litres on marginal farms to 10.26 litres on small farms. Average Malani is consuming 3.93 kgs of meat and Mutton and 4.30 kgs of sugar. The per capita expenditure on social functions is observed to be Rs. 2024 which is the highest in all other non-food items.

Table-6.35: Per Capita Consumption of Different Items

Sr. No.	Items	1990-91	2016-17		
		All farms	Marginal farms	Small Farms	All farms
1.	Food Items (Kgs.):				
	Cereals	147.24	156.79	176.89	158.95
	Milletes	33.33	-	-	-
	Pulses	7.24	7.95	8.36	7.99
	Vegetable	20.37	24.16	26.95	24.46
	Fruits	3.00	4.03	3.91	4.01
	Edible Oils	2.22	6.53	7.02	6.58
	Milk (Ltrs.)	29.16	9.84	10.26	9.88
	Milk Products	2.07	1.10	1.10	1.10
	Meat & Mutton	4.85	3.91	4.06	3.93
	Sugar	7.74	6.71	6.51	4.30
	Spices	3.36	0.84	0.91	0.85
	Tea	0.43	0.65	0.74	0.67
2.	Non-Food Items (Rs.):				
	Soap & detergents	6.55	141.50	146.04	141.78
	Purchased Energy items	34.86	1836.02	2057.78	1857.74
	Pan, Biri, Tobacco	55.15	201.34	285.87	210.43
	Medical care	25.30	1006.71	1046.00	1009.46
	Clothing	223.23	1263.14	1159.06	1250.49
	Foot Wear	44.61	335.57	456.03	348.88
	Education and recreation	44.61	354.03	592.77	380.03
	Social ceremonies	38.09	2013.42	2135.82	2023.80
3.	Total	445.97	7151.23	7879.37	7222.78

Source: Own field survey

The per capita expenditure on non-food items varies from Rs. 7151.23 on marginal farms to Rs. 7879.37 on small farms and average being Rs. 7222.78. All this shows that per capita consumption of food and non-food items in Malana is changed drastically during last 25 years. The probable reason may be the inflow of liquid money and easy availability of non-food items in the village shops.

6.41 SUMMING UP

The Malanis economy is basically depend on natural resources. The important segments of the economy are the production of crops, animal rearing and production and collection of support land products. In addition to that, Malanis are also venturing in organizing

tourism and trekking business. Numbers of Malanis have established Hut Restaurants to cater the needs of tourist visiting Malana territory. The production of traditional crops are considered to be uneconomical due to primitive nature of crop production, harsh climatic conditions and availability of alternative options to get more return from the small land base. The productivity of traditional crops like maize, wheat, barley and potato is very low. Presently Malanis are adopting cultivation of high value cash crop on their small land holdings in place of traditional crops. The animal husbandry assumes great significance in the household economy of Malana people. Moreover, it is economically viable and sustainable in view of climatic and geographical conditions. Availability of sufficient area of pasture and grazing land also boost the rearing and production of animal output in entire Malana territory. The Malanis are performing this occupation for centuries. The average net returns from animal rearing increased from Rs. 6430 per annum in 1990-91 to Rs. 68821 per annum in 2016-17. Overall economics of animal rearing is proved to be a sustainable and viable enterprise of Malanis. The support land products are the main ingredient of Malanis household economy. These products include; fodder, fuel wood, timber, medicinal herbs and wild vegetables/fruits. The other important herb is cannabis which Malanis are even cultivating on their arable land and lot of output is collected from public support land. The resin collected from this herb which is banned by Narcotic and Drugs Control Act gives lot of income to the Malanis. Due to restricted nature of the output, estimation of income earned by Malanis is not possible. However, earnings are estimated for those products which Malanis are collecting/getting from other support land products in the present survey. These net returns vary from Rs. 3,25,412 to Rs. 4,60,536 per annum per family. In Malana common land production/collection is very crucial for the fulfillment of their family requirements and it also acts as complementary to the major enterprise (animal husbandry) of Malanis. The production and collection of the banned crop (cannabis) have changed the living standard of Malanis to a great extent. Therefore, legalization of extraction of this product will be crucial for Malanis. Regarding subsidiary enterprise of Malanis, only viable and sustainable option is the establishment and running of Hut Restaurants to earn significant income from visiting tourists. Presently the inflow of tourist in Malana territory is highly alarming. However, enumeration of investment and income from this enterprise is not possible for various social and legal reasons.

CHAPTER- VII

SUMMARY, CONCLUSIONS AND SUGGESTIONS

This is a repeat survey of Malana Village after 25 years. The last survey was carried out in 1990-91 by AERC Centre, Shimla. The repeat survey was conducted in the year 2016-17 by the center. The idea behind this village study was to revive the old continuous village studies system of the Agro-Economic Research Centre's. The focus of a continuous village study typically, as mentioned in the earliest continuous village studies in the fifties, was to closely observe the socio-economic changes that the villages undergo over a period of time. These studies used to begin with working on the methodology of the study to ensure that the study brings out comparative statistics on important issues emerging in the village. Secondly, to bring out social and economic changes taking place in the village population, the coverage of these issues is ensured by collecting secondary data and primary survey data and opinion and attitude survey. Finally, the objective of such surveys is pin-pointing the changes being observed and analyze the same.

OBJECTIVES AND METHODOLOGY

In view of the continuous village study concept and its stated goals, the study of Malana Village focused on the socio-economic and ecological changes that have taken place during this quarter of century, since 1992. The structural changes in the social and economic arena of the village, changes in the dynamics of agricultural production, natural resource use, land use pattern, demography, and public institutions were focused for comparative study of the same. Since Malana is a small village, census method was adopted for the collection of necessary data on prescribed schedules. Data from other sources and village level institutions were also gathered. The existing village level institutions like Schools, Health Centre and Public Distribution Store were also enumerated in detail. The village level functionaries, like Pradhan, Up-Pradhan, Anganwari workers, Ward Members, Panchayat Secretary and Patwari, were also consulted for gathering insight into the functioning and performance of these entities. In order to keep the analysis simple, tabular compilation consisting percentages, averages, different cost concepts and indices, like Herfindhal indices, were used.

MAIN FINDINGS

The detailed analysis and discussions of the socio-economic dynamics, the changes taking place in fragile ecological system of the village habitat, the increasing presence of Government institutions concerned with forests, food security, education, health, policing have thrown up important conclusions and policy suggestions. The main findings are as follows:

1. The village during 1991-2017 experienced little more than two times increase in the number of household as it increased from 170 households to 317; and registered increase in average family size. In 1981 the number of households was only 153.
2. There was significant increase in the quality of houses between 1991 and 2016-17 with increase both in numbers and quality. The total number of houses increased from 353 semi pucca houses in 1991 to 944 houses with 688 pucca houses and 256 semi pucca houses. The semi pucca houses include special purpose houses for winter season, as separate animal sheds and dwelling houses.
3. There was a huge growth in population during this period with an increase of 106.39%, as it jumped from 954 to 1969. It was 764 in 1981.

4. What is remarkable in the demographic dynamics of Malana village is impressive increase in the sex ratio of village by 70 (in numbers) attaining further improvement in sex ratio from the already appreciable figure of 923 in the year 1991 to reach 993 by 2017, which is a shade below parity. It speaks volumes for the community's attitude to the weaker sex. It was 900 in 1981.
5. Literacy rate improved impressively in the village of Malana from 6.0% in 1991 to 49.25% in 2016-17. Male literacy rate however is comparatively higher than that of the female. The literacy rate was as low as 4.1% in 1981 with negligible female literacy and 11.1% male literacy.
6. Average size of holdings decreased from 1990-91's average size of holdings 0.85 hectares to the low of 0.25 hectares in 2016-17, signifying a decrease of 70.59 percent.
7. As compared to the scenario in 1990-91 when the gross cropped area of the village was 124.58 hectare; the gross cropped increased to 132.21 hectare in 2016-17, indicating a percentage increase of 6.98 percent.
8. Crop Diversification index in terms of Herfindhal Index in 2016-17 came to be 0.3694 as compared to that of 1990-91, when it was 0.3464. It indicates worsening condition of crop diversity during this period. The cropping pattern, which had experienced complete disappearance of millets by 1990-91; now after 1990-91 showed significant decline in rabi crop of wheat and barley; and massive shift to kharif crops of maize, rajamash and potato.
9. Food grains production comparative scenario indicates that the production of all crops increased in 2016-17 as compared to the level of production in 1991-92.
10. Though both agricultural production costs and gross returns increased during this period, the farmers received much higher net income returns in 2016-17 as compared to the year 1990-91 in crops animal husbandry and common pool resources. The return however was highest in common pool/support lands resource based activities, followed by animal husbandry, and crops.
11. In the livestock sector, the average livestock population of the Malanis in 2016-17 was significantly higher than the same during 1990-91, with sharp decline in milch animal and plough animals and enormous increase in sheep and goat population.
12. Interestingly despite increasing trends in livestock tending costs, the income returns from live stocks was found significantly higher during 2016-17 as compared to that in 1990-91.
13. Plants and trees wealth per farm on an average was found higher in 2016-17 as compared to 1990-91.
14. Both costs of and returns from Common Pool Resource produces were found higher in 2016-17 as compared to 1990-91. An average farm household income from common pool resources rose from Rs. 2,124 in 1991 to an amount of Rs. 3,35,764 in 2016-17.
15. Malana village during this period appears to have undergone significant changes in its labour force and occupational pattern with sharp increase in labour force engagement in agriculture and animal rearing, from 199 in 1991 to 652 (along with 11 children) in 2016-17; and decline in engagement of workforce in agriculture plus animal rearing plus herb collection. Also there was a decline in

labour force as percentage population from 56.4 to 50.13 percent. Similarly dependency ratio has changed from 0.77 in 1991 to 0.99 in 2016-17.

16. As regards use of farm implements, results of the study show that the number of farm implements in use among Malana farmers has increased during the period 1990-91 to 2016-17.
17. Interestingly, an average Malana household in 2016-17 is managing its economy by putting in less than standard mandays available with them as compared to 1990-91, when an average household had to put in much more hours of labour than available. This clearly indicates that Malana people are well off even while working for fewer labour hours.
18. Household durables, an important indicator of prosperity, have increased significantly by 2016-17 as compared to 1990-91.
19. There is remarkable increase in the level of income, expenditure and savings in 2016-17 in terms of per capita income, consumption expenditure and saving as compared to those in 1990-91.
20. During this period of 25 years, continued adverse impact on soil, use of public land, and plant diversity has been noticed with more intensity in the natural resources; mode of farming, availability of fuel and fodder, and loss of livestock have noticed negligible change; while there is a discernible shift in cropping pattern from traditional coarse grains to barley and maize and finally to pulses, rajamash; and concentration of human resources on common pool resource activities of collecting cannabis and rearing of sheep and goats has been recorded. In so far as the dynamism shown towards tapping natural resources available in abundance, there appears to be very little success in absence of either government developmental strategy or the villagers' own social dynamism.

POLICY SUGGESTIONS

1. Agricultural Crops

Change in agricultural crop-mix in Malana village can be made an instrument for revolutionizing farming. Following the emergent trend of change and also taking note of market opportunities, there is need for stress on the production of kharif crops of maize, rajmash, and potato and reviving the production of millets. Among horticultural items the opportunities for promoting production of almonds, walnut, cherry and apple should be explored. For all this, extension services for dissemination of science and technology application in farming, awareness of market opportunities should be provided to the village.

2. Common Pool Resource Crops

- 1) At present the major common pool crop playing an important socio-economic role in the village is cannabis, reported to be of very high quality.
- 2) Common strategy for replacing any disruptive agricultural produce deemed to be harmful is to replace it by introduction of some equally profitable high value agricultural or horticultural or even medicinal/herbal crops/plants that can compete it out with its competing features.

- 3) Introducing and promoting cultivation of herbs and other high value low volume crops on commercial scale like, *dorighass*, *kooth* and *kalazira*, wild grape and hops can be explored to tackle the situation.
- 4) The economic issue from the perspective of the villagers, however, is why this should be subjected to the uncertainties of growing new alternative produce on their private land or the common land. Second, the existing cannabis harvesting whether in common pool areas or in one's own private land has the cultural knowledge of the villagers related to its medicinal, entertainment, spiritual, mystic and cultural use. Third, even if the farmers are persuaded to opt for some alternative where would be the demand for it. Fourth, the narcotic use of the bi-product of the plant as bhang is a matter of cultural and consumption best-practices that must govern it, and can be evaluated within this parameter only. Fifth, because present farmers development policy of Ministry Agriculture and Farmers' Welfare is according high priority to activities and resources other than the core farming activity, this common pool resource management is of utmost importance towards bringing prosperity in this village and entire Parbati Valley and elsewhere in Himachal Pradesh and other similarly situated states. Finally, this requires the State Government set up enabling protocol for the farmers for carrying out cannabis farming with ensured value-chain and activity-chains established for ensuring the supply of the physical as well as narcotic produce of the crop to various indigenous and global business and industry.
- 5) Soil conservation schemes should be implemented on priority basis to ensure improvement of soil quality and protect it from soil erosion, landslides and floods caused by torrential rains.

The overall agricultural and horticultural development efforts of the village requires concerted efforts by Department of Agriculture for crops and horticultural promotion schemes; by Department of Animal Husbandry, Dairying and Fisheries for promotion of dairy, livestock and fisheries; Department of Forestry and Environment for streamlining timber and non-timber based income support activities and ensuring sustainable use of common pool resources under their control.

3. Animal husbandry

From the comparative scenario during the two periods, it appeared that livestock sector grew significantly in Malana village, which is true of the national trend in this sector. This underlines the need for a robust livestock development support to the village and other similarly situated villages so that this village's natural endowment for full development in this sector as a potential area is tapped. Specific actions required in this respect are as follows.

- 1) Introduction of new breeds of sheep and goats in response to sharp increase in sheep and goat population.

- 2) Improvement of animal breeds, particularly of local cows, in view of the near extinction of milch animals and plow animals.
- 3) The problem of shortage of fodder for cattle and livestock in general should be solved by ensuring supply of fodder during the periods of shortage.
- 4) Taking into account the significant growth of livestock sector, veterinary services at the village level should be ensured with all backward and forward linkage facilities.

4. Man power development

The Malana population appears to have remained stuck to its primitive mould of social and economic existence, which left very little scope for improving learning new skills by way of education and training of any type. Thankfully, the Government has recognized this fact by covering the entire population of the under the provision of OBC category. Malanis going out as Government servants and for higher education have been found to be rare incidence. The overall trend in the improvement of man-power is limited to conventional skills of working as farmers, collectors, various manual works required in day today life. One spectacular development that has exposed the villagers to the need of learning new skills is the onslaught of tourism and tourism related activities.

In view of these facts, the following specific efforts need to be made by development agencies of the Government:

- 1) Developing a positive outlook among the Malanis by means of connecting the village through the rest of the world by means of better and more efficient and accessible road and transport facilities is crucial.
- 2) Another important area of priority is bringing this village under the special focus of the State and District Administration for strategic mobilisation of the Departments concerned with education, language, culture and publicity, activating Civil Society forces to bring the village out of its adamant primitive mind-set even while retaining its unique architecture, governance, and an unparalleled form of local self government.
- 3) That despite an appreciable presence of the Department of Education with a primary and high school building manned with teachers, equipped with latest ICT facilities in the classrooms, the response of the population to enrollment is pathetic, and symptomatic of a gap in social-wisdom and calls for special attention of the State and District Authorities in making things change, which alone can blow new life in the village. Even in this respect associating meaningful civil society agencies may go a long way.
- 4) An increased presence of agricultural and horticultural extension services functionaries and health services functionaries and other government departments officials and their use as medium of change, in addition to their usual official functions, to educate them is necessary.

- 5) There should be vigorous efforts on the Skill Development Programmes to provide the villagers with opportunities for entrepreneurial trainings, for rural occupation related skills of masonry, wood carving, weaving, spinning of cloths; hotel, tourism and trekking related skills that fit in the emerging tourism industry and improving lifestyle of the village. Still another plank of training required is for enabling the villagers in carrying out activities for processing and selling the locally available herbs, non-timber forest produce and other local materials.

5. Road and communications

Since absence of transport and communication infrastructure has been major factor behind the isolation of the village since time immemorial, and despite the road connectivity up to a point and availability of telecommunication network, this is still a major hurdle on the way of full realization of the village development, the following steps are required to be taken:

- 1) Providing with PMGSY road connectivity for all-season transportation facility is crucial to speedy development.
- 2) The last mile road connectivity up to old Malana village should be provide with top priority. Since the villagers and a large number of tourists flowing to the village use the village paths, there is an urgent need for providing these paths with paved path throughout the 3 kms linking kachh path.

6. Tourism and trekking

- 1) Since this village is emerging fast as an important domestic and international tourists and trackers center, the tourism department need to show its presence with tourist information center equipped with appropriate information booklets and signages to facilitate the tourists with registration counter.
- 2) Since large number of tourists flock to this area for exploring society and environmental uniqueness, the concerned Government Departments of Forests and PWD should pay special attention to develop adequate village walking and trekking paths.
- 3) The village for all its uniqueness deserves to be developed as and showcased under Village Tourism with the involvement of Tourism and Culture Department of the state.

7. Local institutions

Though the steady improvement in the presence of public institutions of food department, education, health, forests, and law keeping agencies is quite impressive, for tapping the welfare potential of the activities of these public institutions, the respective departments/public institutions need to accord priority to improving their functioning in the village. The following specific steps are required:

- 1) Adding sufficient building space for Government High School and improving the provision for different functions of the school is important.
- 2) Providing with ample residential space for all the teachers and employees of the school to enable the school function without dependence on the village to prevent the employees from becoming victim of the village's primitive untouchability practice against the outsiders is important.
- 3) Provision of separate Allopathic and Ayurvedic Primary Health Centers should be ensured.
- 4) Expansion of village water supply system should be made.
- 5) The village should be provided with a respectable Panchayat Ghar in the local architectural style with full functional facilities.
- 6) Providing with proper solar energy system for the village would be important in view of its functional reliability as an isolated village.
- 7) The general lack of hygienic and sanitation in the village should be tackled by sensitizing the village population through NGOs and the present government initiatives under Swachha Bharat Abhiyan.

ALTERNATIVE DEVELOPMENT STRATEGY: A SUMMARY

The findings of the study and the policy suggestions that have emerged indicate that despite a considerable progress the village has made in every walk of life, as evident from the degree of sustainability and diversification attained so far, the village remains one of the most backward villages in this part of the Himalayas. The village still remains seriously affected by its unwillingness to move forth wholeheartedly in availing development opportunities being provided by the Government and course of socio-economic circumstances pushing it to new opportunities of developments. Though outwardly seeming to be progressive, the village appears to be threatened by circumstances that would keep it deprived of opportunities that it may find for itself with the complete embracement of developmental forces of education, opening up to the outside world and adopting the modern outlook of life.

At present the village population is in the dire need of faster increase in literacy, cleanliness drive, diversification in its means of income earning, and a conscious effort on its leaders' part to shed the burden of primitiveness, though not without attention to preserving its unique cultural, architectural, social and governance systems. This is important considering the fact that the village is lagging behind the rest of the region and the state due to lack of dynamism.

Keeping in view the emerging opportunities of development that has changed the socio-economic life of the people, and also exposed this region to unexpected forces of development with potential to destabilise the present human and natural habitat, there is a need for sensitizing development strategy towards maintaining eco system of the region.

Keeping in view the proven potential of all common pool natural resources, especially cannabis, in making substantial socio-economic improvement through the local knowledge and expertise in harvesting the crop and its suitability to the emerging tourism industry -- the State Government should consider the regularisation of cannabis with appropriate development strategy and legal approach.

The village requires special attention of the Deputy Commissioner and district level Departmental Heads; and the State Government to make headway towards helping it out of an ignorant existence and realise its glamour and glory as a unique village of Himachal Pradesh.

BIBLIOGRAPHY

- Bhalla, V. and P.C. Sharma (1996). "Malanis", in K. S. Singh, et al. People of India: Himachal Pradesh, Anthropological Survey of India, Vol. 24, New Delhi.
- Bhati, J.P. Bhati & D.V. Singh (1987). Women's Contribution to Agricultural Economy in hill Regions of North-West India, Economic and Political Weekly, Vol. XXII, No.17, Review of Women Studies.
- Chand, Puran. (1984). Group Differentiation in Isolation: A comparative morphometric study of Malanis in relation to some neighbouring Populations of Himachal Pradesh, unpublished PhD thesis, Deptt. of Anthropology, Punjab University Chandigarh.
- Charak, Sukhdev Singh (1979). History and Culture of Himalayan States, Vol.2: Himachal Pradesh, Part 2, Light and Life Publishers, New Delhi.
- Chetwode, Penelope. (1972). Kullu: The End of the Habitable World, John Murray, Ltd., London.
- Diack, A.H. (1896). The Kulu Dialect of Hindi: Some Notes on its Grammatical Structure, with Specimens of the Songs and Sayings Current amongst the People, and a Glossary, The Civil and Military Gazette Press, Lahore.
- Glenn has offered his own account of introduction of cannabis cultivation to Malana, Glenn, 1998. A drug trade-arrested near Malana/706920/Accused 2nd August 2015
- Gore, F. St. J. (1972). Lights & Shades of Hill life, Oriental Publishers, Delhi.
- Government of India. Cost of Cultivation Scheme, Directorate of Economics and Statistics, Ministry of Agriculture, New Delhi.
- Government of Punjab (1994). Gazetteer of the Kangra District: Kullu, Lahul and Spiti, Part 2 to 4, Indus Publishing Company, New Delhi.
- Government of Himachal Pradesh (1981). Socio-Economic Survey of Village Malana, Department of Economics and Statistics, Shimla.
- Grierson, G.A (1967). Linguistic Survey of India, Vol. 3: Tibeto-Burman Family, Part 1, Delhi, Motilal Banarsidass.
- Hercourt, A.F.P. (1982). The Himalayan Districts of Kooloo, Lahul and Spiti, Vivek Publishing, Company Delhi.
- <http://www.thetalk.com/cannabis-forum/showthread.php.?3987-high-times-cannabis-cupwinners-1988-2007>.
- Hutchison, J. and J. Ph. Vogel (1982). History of Panjab Hill States, Vol. 2, Department of Languages and Culture, Shimla, Himachal Pradesh.
- Jodha, N.S. et. al (1982). Sustainable Mountain Agriculture, Perspectives and Issues, Vol. I (Edited), ICIMOD, Oxford and IBH Publishing Co. Ltd., New Delhi.
- Khosia, G.D. (1980). Of Mountains and Men, Allied Publishers Private Limited, New Delhi.

- Kumar, Krishan (2006). An Experience in direct democracy – A Case study of Malana village of District Kullu, unpublished PhD Thesis, Deptt. of Political Science, HPU, Shimla.
- Kumar, Virender (2005). Malana Ke Jamlu Devta: Nrivanshpuravasheshiya Adhyayan, M.Phil. Dissertation, Department of History, H.P. University, Shimla, 2005.
- Panchani, C.S. (1994). The Himalayan Tribes, Konark Publishers Private Limited, Delhi.
- Prarthi, Lal Chand (1971). KulootDesh Ki Kahani, Hindi, Neel Kamal Prakashan, Kullu, 1971.
- Punjab District Gazetteer (2003). Kangra District: Kullu and Saraj, Vol. 30-A, Himachal Academy of Arts, Culture and Languages, Shimla.
- Randhawa, M.S. (1974). Travels in the Western Himalayas: In Search of Paintings, Thomson Press Limited, Delhi.
- Rosser, C. (1955). 'A "Hermit" village in Kullu'. In India's villages, edited by M.N. Srinivas, Asia Publishing, New Delhi.
- Shabab, Dila Ram (1996). Kullu: Himalayan Abode of the Divine, Indus Publishing Company, New Delhi.
- Sharma, D.D. (1992). Tribal Languages of Himachal Pradesh, New Delhi, Mittal Publications.
- Sharma, Gautam (1980). Vyathit Himachal Pradesh: Lok Sanskriti Aur Sahitya, National Book Trust, New Delhi, India.
- Sharma, Narender (2001). Philosophy of Customary Jurisprudence: A Case Study of Malana Village in District Kullu of Himachal Pradesh, LL.M. Dissertation, Department of Laws, H.P. University, Shimla.
- Sharma, Narender Kumar. (1988). Malana: Puratan Sanskriti Ka Prateek, Bhavana Prakashan, Delhi.
- Sharma, Parveen Kumar (2002). Studies of Phytodiversity of Medicinal and aromatic Plants in Parvati Valley, Himachal Pradesh, Ph.D. Thesis College of Forestry, Dr. Yashwant Singh Parmar University of Horticulture and Forestry, Nauni-Solan, Himachal Pradesh.
- Sharma, Vidya (2001). Kulaant Darpan, Kullu, Chander Prakashan, Kullu.
- Singh, D.V. & J.P. Bhati (1985). Manpower Utilization in a Hilly Region of India, Agricultural Situation in India, New Delhi.
- Singh, D.V. (1991). Production and Marketing of Off-Season Vegetables, Mittal Publications, New Delhi.
- Singh, D.V. (1992). Agricultural Support Land: Perspectives and Issue in Himachal Pradesh, Status Paper, ICIMOD, Kathmandu, Nepal.
- Singh, D.V. (1992). Agricultural Support Land; Perspectives and Issues in Himachal Pradesh, Status Paper, ICIMOD, Kathmandu, Nepal.
- Singh, D.V. and B.K. Sikka (1991). Wood Balance Study Himachal Pradesh, Agro-Economic Research Centre, H.P. University, Shimla (Mimeo).

- Singh, D.V. and B.K. Sikka (1992). Malana: An Oldest Democracy Sustainability Issues in Village Economy (Himachal Pradesh), Agro-Economic Research Centre, H.P. University, Shimla-5 (Mimeo).
- Singh, D.V. et.al (1992). Production and Marketing of Minor Forest Products: A Case Study in Himachal Pradesh, Indian Journal of Agricultural Marketing, Conference Number.
- Singh, Tej Vir (1989). The Kullu Valley: Impact of Tourism Development in the Mountain Areas, Himalayan Books, New Delhi, 1989.
- Sood, Asha (1983). "Malana Janapada", Kullu DushehraSmarika, by J.C. Dutt, Annual Magazine.
- Sudershan, Vashishtha (1984). Beas Ki Dharaa, Hindi Himachal PustakBhandar, Delhi.
- Thakur, M.R. (1996), Pahari Sanskriti Manjusha, Hindi, Reliance Publishing House, New Delhi.
- Thakur, M.R. (1997). Myths, Rituals and Beliefs in Himachal Pradesh, Indus Publishing Company, New Delhi, 1997.
- Thakur, Maulu Ram (1981). Himachal Main Pujit Devi-Devta, Hindi, Rishabhacharan Jain EvamSantati, New Delhi.
- Thakur, Narotam (1992). Zila Kullu main Malana Gaon Ki SamajikTathaRajanitikSansthayn, M.Phil. Dissertation, Department of PoliticalScience, H.P. University, Shimla.
- Thakur, Sonia (1992). A Sociological Study of the People of Malana in Himachal Pradesh, Ph.D. Thesis, Department of Sociology, Punjab University, Chandigarh.
- Thakur, Surat (1997). ParyatakonKaSwarga-DevBhoomi Kullu, PuratatvaChetanaSangh, Kullu.
- The Indian Government's 1985 Narcotic Drugs and Psycho-tropic Substance Act prohibits the production, manufacture, possession, sale, purchase, transportation, warehouses, concealment, use of or consumption of charas (Cannabis resin).
- The Narcotic Drugs and Psychotropic Substances Act, 1985 (61 of 1985), Bare Act with Short Notes 2010, Universal Law Publishing Company Private Limited.
- Tobdan (2000). Kullu: A Study in History (From the Earliest to A. D. 1900), Book India Publishing Company, Delhi.
- Verma, J. R. (1980). Impact of Development on Malana, Kullu Dushehra: Antan-ashtriyaLokNrityaSamaaroh, by J.C. Dutt, Annual Magazine, October.