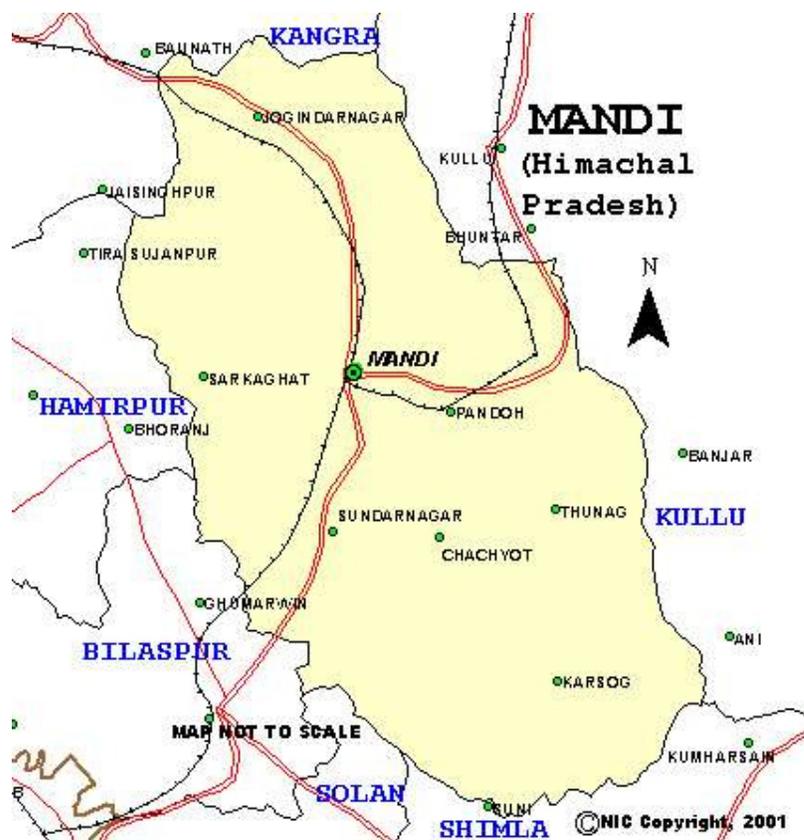


District Human Development Report

Mandi



Foreword

The first Human Development Report of Mandi district of Himachal Pradesh is the second in the series of district level Human Development Reports brought out by the Planning Department with the assistance from the Planning Commission and the United Nations Development Programme under the project – ‘Strengthening State Plans for Human Development’. The findings of the report will not only serve as the baseline information but also as a guide in mapping the development strategy for Mandi district with an objective to achieve the goal of ‘inclusive growth’. The document will prove to be an important tool for planners and social scientists engaged in planning and policy analysis at the grass root level.

I express my gratitude to the Planning Commission, Government of India and the United Nations Development Programme for providing all important support to the State Government in furthering the cause of human development in the State. I also appreciate the efforts made by the Planning Department and the Department of Social Sciences, Dr. Y.S. Parmar University of Agriculture and Forestry, Solan in finalizing the report.

Ajay Tyagi
Principal Secretary (Planning)
To the Government of Himachal Pradesh

Preface

Last three decades of development have witnessed an increasing emphasis on the human development both at national and international levels. The development debate assumed the human development as the central point in the development strategies forwarded by contributions made by Mahbub ul-Haq and Amratya Sen, both from the South Asian region. Late Mahbub ul-Haq advocated that development is about 'human well being' and not just about incomes and went a step further cautioning against the 'jobless, rootless and ruthless' income oriented growth.

Himachal Pradesh has prepared with the first ever Human Development Report in the year 2003 with the assistance from the Planning Commission and the United Nations development Programme. As a follow up to the recommendations made in various Human Development Reports brought out at the national and sub national levels, the Planning Commission, government of India and the United Nations Development Programme decided to support the efforts of the partner States to prepare the Human Development Reports for the selected districts across the country on pilot basis. Mandi district was one of the three districts of Himachal Pradesh selected for the purpose. The Department of Social Sciences, Dr. Y.S. Parmar University of Horticulture and Forestry, Solan was assigned the task to prepare the first Human Development report of Mandi district. A mechanism was evolved for preparing the report with involvement of local administration and elected representatives through periodic interaction at the local level and at the State level. The Planning Department provided technical and other inputs to coordinate the efforts made by the agencies involved in bringing out the document.

The report analyzes the information pertaining to demographic and other socio-economic indicators for each of the development blocks of Mandi district based on the analysis. The study could not work out Human Development Indices at the block level due to non-availability of consistent and reliable data. The inter Development Block comparisons based on available data on various socio-economic indicators has been attempted in the report. Qualitative analysis has also been made in the areas where it is

not possible to quantify the information pertaining to development indicators. The draft report was presented and discussed in the District Level Planning, Development and Twenty Point Programme Review Committee which has representation from the district administration, elected representatives and the civil society. The report has been finalized after incorporating the comments and suggestions that came up during discussions with the public representatives from different sections of the society.

I put on record my appreciation for the hard work done by the officers and the officials of the Planning Department in bringing out this report. This report will surely be a guiding tool in determining the development strategy for Mandi district in future.

Dr. S. K. Shad
Adviser (Planning)
Planning Department
Himachal Pradesh

The Team

Dr. YS Parmar University of Horticulture and Forestry, Solan

Principal Investigator

M. K. Vaidya

Co- Principal Investigators

L. R. Sharma

Y. S. Negi

Planning Department, Himachal Pradesh

Basu Sood, Deputy Director

T. S. Thakur, DPO, Kangra

Sanjeev Sood, ARO

CONTENTS

| Chapter | Title | Pages |
|----------------|---|--------------|
| I | Introduction | 1-4 |
| II | Concepts and methods | 5-13 |
| III | Profile of the District Mandi | 14-24 |
| | 3.1 Mandi in Historical Perspective | 14-15 |
| | 3.2 Geography of the District | 15-17 |
| | 3.3 Administrative make-up | 17 |
| | 3.4 Area and population | 17 |
| | 3.5 Religious persuasions | 18-19 |
| | 3.6 Literacy | 20 |
| | 3.7 Occupational distribution | 20-21 |
| | 3.8 Land use pattern | 21-22 |
| | 3.9 Land holding | 22-23 |
| | 3.10 Animal husbandry | 24 |
| | 3.11 Irrigation and drinking water supply | 24 |
| IV | Demographic features | 25-53 |
| | 4.1 Population | 26-30 |
| | 4.2 Population density | 30-31 |
| | 4.3 Sex ratio | 31-33 |
| | 4.4 Women participation | 34 |
| | 4.5 Work participation | 35-37 |
| | 4.6 Employment generation | 38 |
| | 4.7 Natural endowments | 38-40 |
| | 4.8 Natural calamities | 41 |
| | 4.9 Infrastructure development | 42-52 |
| | 4.9.1 Block wise number of Villages, Panchayat, Wards etc. | 42 |
| | 4.9.2 Road network | 42-44 |
| | 4.9.3 Infrastructural facilities in Primary and Middle Schools | 44-46 |
| | 4.9.4 Financial institutions | 46-47 |
| | 4.9.5 Fair price shops | 47-48 |
| | 4.9.6 Distribution | 49-52 |

| | | |
|------------|--|----------------|
| | 4.10 Self help groups | 52-53 |
| V | Education | 54-72 |
| | 5.1 Number of schools | 54-57 |
| | 5.2 Enrolment | 58-62 |
| | 5.3 Pupil-teacher ratio | 62-64 |
| | 5.4 School drop- outs | 64-66 |
| | 5.5 Out of school children | 66-68 |
| | 5.6 Literacy rate | 68-70 |
| | 5.6.1 Adult literacy | 70-71 |
| | 5.7 Child labour | 71-72 |
| VI | Health services | 73-88 |
| | 6.1 Block wise staff position in PHC and Sub Centre | 73-76 |
| | 6.2 Malnutrition status | 77-79 |
| | 6.3 Immunization progress | 79-80 |
| | 6.4 Block wise births | 81 |
| | 6.5 Block wise infant mortality | 81-82 |
| | 6.6 Infant mortality rate | 82-87 |
| | 6.7 Drinking water | 87 |
| | 6.8 Sanitation | 88 |
| VII | Cropping pattern | 89-103 |
| | 7.1 Agriculture | 88 |
| | 7.1.1 Cropping pattern changes - A temporal analysis | 89-95 |
| | 7.2 Horticulture | 95-100 |
| | 7.3 Vegetables | 100-103 |
| | Summary | 104-113 |
| | Appendices | i-viii |
| | References | ix |

LIST O F TABLES

| Table No. | Title | Pages |
|-----------|---|-------|
| 3.1 | Area and population | 18 |
| 3.2 | Occupational distribution of the population in Mandi district according to census 2001. | 21 |
| 3.3 | Land use pattern in Mandi district | 22 |
| 3.4 | Number, area and average operational holding in Mandi district for the year 1995-96 | 23 |
| 3.5 | Number of livestock in Mandi district | 24 |
| 4.1 | Block wise villages in Mandi district as per census report | 25 |
| 4.2 | Block-wise population in Mandi district | 26 |
| 4.3 | Block-wise scheduled caste population in Mandi district | 28 |
| 4.4 | Block-wise scheduled tribe population in Mandi district | 29 |
| 4.5 | Block-wise area and population density in Mandi district | 31 |
| 4.6 | Sex ratio in different blocks of Mandi district | 32 |
| 4.7 | Category-wise sex ratio in different blocks of Mandi district for different castes as per 2001 census | 33 |
| 4.8 | Representation of women in Panchayat Bodies (1995 and 2005) | 34 |
| 4.9 | Block-wise work participation rate according to census 2001 | 35 |
| 4.10 | Block and category wise distribution of marginal workers in Mandi district | 36 |
| 4.11 | Block-wise industrial category of main workers | 37 |
| 4.12 | Block-wise employment generated in Mandi district | 38 |
| 4.13 | Block-wise number of mines in Mandi district | 39 |
| 4.14 | Block-wise natural endowments (water sources) | 40 |
| 4.15 | Block-wise cases of natural calamities in Mandi district | 41 |
| 4.16 | Block-wise panchayat, wards and villages in Mandi district (2001) | 42 |

| | | |
|------|---|----|
| 4.17 | Block-wise status of road connectivity of villages in Mandi district up to 2001 | 43 |
| 4.18 | Block-wise distance of different facilities from block head quarters in Mandi district (2005) | 44 |
| 4.19 | Number of villages having primary schools in the radius of 1 km to 5 km | 45 |
| 4.20 | Availability of facilities in primary and middle schools run by department of education in Mandi district | 46 |
| 4.21 | Block-wise number of financial institutions in Mandi district | 47 |
| 4.22 | Block-wise number of fair price shops in Mandi district | 48 |
| 4.23 | Block-wise number of fuel depots in Mandi district | 48 |
| 4.24 | Block-wise items supplied through PDS in the year 2001 and 2005 | 49 |
| 4.25 | Block-wise supply to mid day meal scheme through PDS in Mandi district (2005) | 50 |
| 4.26 | Block-wise supply through Integrated Children Development Scheme (ICDS) | 51 |
| 4.27 | Block-wise items supplied through swayam gramini rojgar yojana (SGRY) in Mandi district | 52 |
| 4.28 | Block-wise detail of self-help groups (SHGs) in Mandi district | 53 |
| 5.1 | Block-wise total (government run & others) number of different category schools in Mandi district in 2005 | 55 |
| 5.2 | Block-wise number of primary schools run by department of education | 56 |
| 5.3 | Block-wise number of colleges in Mandi district in the year 2001 and 2005 | 57 |
| 5.4 | Block-wise total (govt. run and private & other schools) enrolment in primary, middle and high/senior secondary schools in Mandi district in 2005 | 58 |
| 5.5 | Block-wise per school enrolment in Mandi district in 2005 | 59 |
| 5.6 | Block-wise combined enrolment (government run and other schools) in Mandi district | 60 |
| 5.7 | Block-wise enrolment of students in government managed primary schools in Mandi district | 61 |

| | | |
|------|---|----|
| 5.8 | Year-wise enrolment of scheduled caste and scheduled tribe students in Mandi district | 62 |
| 5.9 | Year-wise number of schools, teachers, enrolment and pupil teacher ratio in Mandi district | 63 |
| 5.10 | Block-wise pupil-teacher ratio in government run primary schools in Mandi district | 64 |
| 5.11 | Block-wise drop-out in primary schools in Mandi district | 65 |
| 5.12 | Block-wise drop-outs in upper primary classes in Mandi district | 66 |
| 5.13 | Block-wise out of school children in Mandi district | 68 |
| 5.14 | Block-wise literacy rate in Mandi district | 70 |
| 5.15 | Block-wise adult literacy rate and literacy rate index in Mandi district | 71 |
| 6.1 | Block-wise health services in Mandi district | 74 |
| 6.2 | Block-wise number of PHCs, number of doctors, population served/ PHC and population served/ doctor | 75 |
| 6.3 | Block-wise staff position in PHC and sub-center for the year 2001 | 76 |
| 6.4 | Block-wise staff position in PHC/ sub-center for the year 2005 | 76 |
| 6.5 | Status of block-wise malnutrition of children (0-6 years) in Mandi district | 77 |
| 6.6 | Status of block-wise malnutrition of children (0-6 years) children in Mandi district for the year 2004-05 | 78 |
| 6.7 | Block-wise immunization progress for the year 2001 | 80 |
| 6.8 | Block-wise immunization progress for the year 2005 | 80 |
| 6.9 | Block-wise and gender-wise new born (births) in Mandi district | 81 |
| 6.10 | Block-wise infant mortality in Mandi district | 82 |
| 6.11 | Block-wise infant mortality rate (IMR) in Mandi district | 83 |
| 6.12 | Block-wise infant mortality rate index and health index in Mandi district based on standard methodology | 85 |
| 6.13 | Block-wise infant mortality rate index and health index in Mandi district based on modified methodology | 86 |

| | | |
|------|--|-----|
| 6.14 | Comparison in ranking position of different blocks in Mandi district using two different methodologies. | 87 |
| 6.15 | Block-wise sanitation status up to 2005 in Mandi district | 88 |
| 7.1 | Block-wise area and production of maize in Mandi district | 90 |
| 7.2 | Block-wise area and production of paddy in Mandi district | 91 |
| 7.3 | Block-wise area and production of wheat in Mandi district | 92 |
| 7.4 | Block-wise area and production of ragi in Mandi district | 93 |
| 7.5 | Block-wise area and production of millets in Mandi district | 93 |
| 7.6 | Block-wise area and production of pulses (kharif) in Mandi district | 94 |
| 7.7 | Block-wise area and production of pulses (rabi) in Mandi district | 94 |
| 7.8 | Block-wise area and production of potato in Mandi district | 95 |
| 7.9 | Block-wise area and production of apple in Mandi district | 96 |
| 7.10 | Block-wise area and production of other temperate fruits in Mandi district | 97 |
| 7.11 | Block-wise area and production of dry nuts in Mandi district | 98 |
| 7.12 | Block-wise area and production of citrus fruits in Mandi district | 99 |
| 7.13 | Block wise area and production of other sub tropical fruits (OSTF) in Mandi district | 100 |
| 7.14 | Area under different important vegetables in Mandi district and Himachal Pradesh | 101 |
| 7.15 | Production of important vegetables in Mandi district and Himachal Pradesh | 102 |
| 7.16 | Temporal changes in sources of growth of main vegetable crops and crop groups in Mandi district (1995-96 to 2003-04) | 103 |

LIST OF FIGURES

| Fig. No. | Title | Pages. |
|-----------------|--|---------------|
| 3.1 | Literacy rate in Mandi district | 20 |
| 3.2 | Area under personal holdings | 23 |
| 3.3 | Area under institutional holding | 23 |
| 3.4 | Livestock position in 2003 | 24 |
| 4.1 | Block-wise villages in Mandi district as per census 2001 | 25 |
| 4.2 | Urban population as per 2001 census | 27 |
| 4.3 | Scheduled caste population in urban areas | 27 |
| 4.4 | Scheduled tribe population in urban areas | 30 |
| 4.5 | Population density in urban areas | 30 |
| 4.6 | Sex ratio in urban areas | 32 |
| 4.7 | Caste-wise sex ratio in Mandi district (2001 census) | 33 |
| 4.8 | Representation of women in panchayat bodies | 34 |
| 4.9 | Work participation rate according to census 2001 | 35 |
| 4.10 | Heavy rain cases reported in Mandi district | 41 |
| 4.11 | Status of road connectivity in Mandi district up to 2001 | 43 |
| 5.1 | Block-wise number of (govt. & others) different category schools in 2005 | 55 |
| 5.2 | Number of primary schools run by department of education | 56 |
| 5.3 | Per school enrolment in 2005 | 59 |
| 5.4 | Literacy rate in Mandi district | 69 |
| 5.5 | Adult literacy rate index in Mandi district | 70 |
| 6.1 | Population served per PHC and per Doctor | 75 |
| 6.2 | Block-wise malnutrition status of 0-6 years children | 78 |
| 6.3 | Infant Mortality Rate (IMR) | 83 |
| 7.1 | Area under principal crops in Mandi district | 89 |
| 7.2 | Area and production of major crops in Mandi | 90 |
| 7.3 | Area and production of major fruits in Mandi district | 95 |
| 7.4 | Production share of important vegetables in Mandi district | 101 |

APPENDICES

| Appendix No. | Title | Pages |
|--------------|---|-------|
| I | Urban population in Mandi district as per 2001 census | i |
| II | Scheduled castes population in urban areas of Mandi district | i |
| III | Scheduled tribe population in urban areas of Mandi district | ii |
| IV | Social group wise population in Mandi district | ii |
| V | Area and population density in urban areas of Mandi district | iii |
| VI | Sex ratio in urban areas of Mandi district | iii |
| VII | Block wise number of JBT Teachers (JBT/ HT/ CHT/ VU/ GVU/ PA) in Mandi district | iv |
| VIII | Block wise scheduled caste, scheduled tribe & OBC teachers of primary schools in Mandi district | iv |
| IX | Block wise number of trained graduate teachers in Mandi district | v |
| X | Block wise number of physical education teachers in Mandi district | v |
| XI | Block wise number of language teachers in Mandi district | vi |
| XII | Number of literates in Mandi district (2001) | vi |
| XIII | Block wise status of Malnourished children(0-6 years) in Mandi district | vii |
| XIV | Block and level-wise status of malnourished children (0-6 years) in Mandi district for the year 2005-06 | vii |
| XV | Area under principal crops in Mandi district | ix |

CHAPTER-I

Introduction

The issues of balanced regional growth and development have attracted considerable attention both researchers and policy makers. Since independence, the central and the state governments have been concerned about how to promote and strengthen economic growth with regional equity. Balanced growth of all the regions of the country is essential for political stability and economic viability of the nation. Naturally, the issue of regional balance has thus been given the focus in the Plans and various programmes with the primary objectives of allround development to be achieved through attainment of better standards of living, greater equity, social justice and respect for human rights. Accordingly, huge investments have been made in various sectors of the economy for the overall socio-economic development. It is in this context that the evaluation of the developmental goals, particularly progress towards human development become more important. Measuring social progress is inherently a difficult task and the researchers and development planners have put forth numerous approaches and measures of socio-economic development. Human development approach is considered universally acceptable and logically efficient as it focuses on people and keeps them at the centre of all aspects of the development process.

In the 70s and 80s, economists believed economic growth and its trickle down effect would reduce poverty. However, poverty reduction is still a challenge despite years of development, market oriented policy measures and high growth rates achieved in recent years in many developing countries including India. In the 1990s, Professor Mahbub ul-Haq and Amartya Sen, both from the South Asian region, greatly influenced the development debate. Late Prof Mahbub ul-Haq emphasized that development is about “human well being” and not just about incomes and rightly cautioned against growth which is “jobless, rootless and ruthless”.

The concept of human development has gradually evolved to encompass all areas of societal development. It is inclusive of income and livelihoods, provision of social

infrastructure and services on an equal basis to all citizens, gender concerns, provision of equal opportunity for political participation, respect for human rights and the concerns for sustainability of environmental and natural resources. The concept distinguishes between two sides of human development, one is the formation of human capabilities such as improved health or knowledge and the other is the use that people make of their acquired capabilities for work.

The main values included in this concept and in human development policy are:-

- i) Ensuring security of life and secure livelihoods for all
- ii) Equity in opportunities and capabilities
- iii) Equality between men and women
- iv) Distribution, justice and sharing of national wealth by all regions/ ethnic groups
- v) Democratic governance and participatory development
- vi) Pursuit of sustainable development and conservation of nature
- vii) Human rights protection
- viii) Upholding human dignity and self respect
- ix) Acceptance and accommodation of divergent cultures, ethnic minorities and
- x) Peace and non-violence

The focus on human development analysis at more desegregated level becomes all the more important in the states characterized by persistent economic disparities. Often the income growth achieved as a consequence of dramatic advances in technology, trade and investment is not converted into human development at the rate required to bring the developmental goals within the reach. Thus, a large section of the society is left behind, widening the human development gaps between the rich and the poor. This is true even for the countries which are widely cited as examples of globalization success stories, where converting rising prosperity into human development is still an issue. Difficulties are encountered in ending the sufferings, debilitating diseases and deaths from preventable illness that blight the lives of a large section of the people world over. For the human development analysis, a composite indicator termed as the human development index (HDI) is used as a comprehensive measure of social welfare. The HDI is a sort of barometer used for capturing the changes, over time and space, in human well-being. This index focuses mainly on three indicators of longevity, literacy and per capita income to arrive at the composite human development index. The

“human development” approach was articulated through UNDP’s Human Development Reports (HDRs) under the leadership of Mahbub-Ul-Haq, and the first in an annual series of HDRs appeared in 1990. These reports defined human development as a process of enlarging people’s choices, using the language of human capabilities.

The HDI is now a favourite planning tool with the policy maker and its use is being emphasized at the all levels of planning. Thus different state government have prepared or are in the process of preparing State Human Development Reports (SHDRs); after taking up this exercise at district levels. The district human development reports serve as the precursor of SHDR. This recognizes that the district is the administrative level at which the success or failure of development initiatives is often determined. The SHDRs generally make use of HDI index in highlighting the human development issues covering human development indicators in inter and intra-district evaluations of impacts of programmes and policies for possible resource allocation to different social sectors. The human development studies are considered as an important “tools for action” as they throw ample light on human development issues and influencing interactions. They serve as platforms for public accountability and action. These reports bring and ensure the human development agenda to the forefront of the state’s developmental priorities and its vision for the future. They draw attention to development indicators at desegregated levels in areas such as education, health attainments that are critical for capacity building of the community. Thus such studies, help the Governments, NGOs, and donor agencies to streamline their development priority. The recommendations emerging from these reports are meant to cover public policy and resources in a focused manner on sustainable human development. Many of the state governments have used SHDRs as a framework for making contextually relevant social sector interventions.

In Himachal Pradesh the first ever Human Development Report was brought out in the year 2003, with the signing of a tripartite MOU with the UNDP and the Planning Commission, Govt. of India to implement the UNDP assisted project on “Strengthening of State Plans for Human Development”. Later, a Human Development Research and Coordination Unit (HDRCU) was established in the Planning Department of Govt. of Himachal Pradesh to ensure smooth implementation of the project. The HDRCU was registered as a society and came to be

known as Himachal Pradesh Human Development Research and Coordination Society (HP HDRCS). One of the activities envisaged under the project was to prepare District Human Development Reports. In the first instance at least three districts viz; Kangra, Mandi and Shimla have been taken on pilot basis. These districts have been identified keeping in view their large size, different demographic factors, socio-economic diversity and diversity in climatic and livelihood patterns.

The task of preparation of District Human Development Report for Mandi district was assigned to the Department of Social Sciences, Dr YS Parmar University of Horticulture and Forestry, Nauni, Solan (HP). In the present report emphasis was laid on block-wise comparison of the attainment of welfare indicators expressed in terms of human development index in the district. Apart from quantitative analysis, in terms of income health and education indices, an attempt has also been made to analyze qualitatively the evolution of decentralized planning and its effectiveness in each block; with special reference to the extent of people's participation, enabling environment and institutional set up.

Concepts and Methods

The concepts and the definitions of the terms adopted for preparation of this District Human development Report are as per the concepts and definitions used in the Census of India 2001 report. This would facilitate the meaningful comparisons of the similar data generated and used by various other agencies at different levels and in different areas or regions. The data for the report were collected from different developmental departments of Mandi District on defined indicators on pre-designed schedules through personal visits. The concepts and definitions used are as given below:

Rural-Urban Areas

An urban area is defined as follows:

- a) All places with a municipality, corporation, cantonment board or notified town area/ committee, etc.
- b) A place satisfying the following three criteria simultaneously:
 - i) a minimum population of 5,000;
 - ii) at least 75 per cent of male working population engaged in non-agricultural pursuits; and
 - iii) a density of population of at least 400 per sq. km. (1,000 per sq. mile).

Household

A 'household' is usually a group of persons who normally live together and take their meals from a common kitchen unless the exigencies of work prevent any of them from doing so. Persons in a household may be related or unrelated or a mix of both. However, if a group of unrelated persons live in a census house but do not take their meals from the common kitchen, then they are not constituent of a common household. Each such person was to be

treated as a separate household. The important link in finding out whether it was a household or not was a common kitchen. There may be one member households, two member households or multi-member households.

Institutional Household

A group of unrelated persons who live in an institution and take their meals from a common kitchen is called an Institutional Household. Examples of Institutional Households are boarding houses, messes, hostels, hotels, rescue homes, jails, ashrams, orphanages, etc. To make the definition more clearly perceptible to the enumerators at the Census 2001, it was specifically mentioned that this category of households would cover only those households where a group of unrelated persons live in an institution and share a common kitchen.

Houseless Households

Households who do not live in buildings or census houses but live in the open on roadside, pavements, in hume pipes, under fly-overs and staircases, or in the open in places of worship, mandaps, railway platforms, etc. are treated as Houseless households.

Head of the Household

The head of household for census purposes is a person who is recognised as such by the household. She or he is generally the person who bears the chief responsibility for managing the affairs of the household and takes decision on behalf of the household. The head of household need not necessarily be the oldest male member or an earning member, but may be a female or a younger member of either sex. In case of an absentee de jure 'Head' who is not eligible to be enumerated in the household, the person on whom the responsibility of managing the affairs of household rests was to be regarded as the head irrespective whether the person is male or female.

Scheduled Castes & Scheduled Tribes

Article 341 of the Constitution provides that the President may, with respect to any State or Union territory, specify the castes, races or tribes or parts of or groups within castes, races or tribes which shall for the purposes of the Constitution be deemed to be Scheduled Castes in relation to that State or Union territory. Similarly, Article 342 provides for specification of tribes or tribal communities or parts of or groups within tribes or tribal communities which are deemed to be for the purposes of the Constitution the Scheduled Tribes in relation to that State or Union territory. In pursuance of these provisions, the list of Scheduled Castes and / or Scheduled Tribes are notified for each State and Union territory and are valid only within the jurisdiction of that State or Union territory and not outside.

Literates

A person aged 7 years and above who can both read and write with understanding in any language has been taken as literate. It is not necessary for a person to have received any formal education or passed any minimum educational standard for being treated as literate. People who were blind and could read in Braille are treated to be literates.

A person, who can only read but cannot write, is treated as illiterate. All children of age 6 years or less, even if going to school and have picked up reading and writing, are treated as illiterate.

Work

Work is defined as participation in any economically productive activity with or without compensation, wages or profit. Such participation may be physical and/or mental in nature. Work involves not only actual work but also includes effective supervision and direction of work. It even includes part time help or unpaid work on farm, family enterprise or in any other economic activity. All persons engaged in 'work' as defined above are workers. Persons who are engaged in cultivation or milk production even solely for domestic consumption are also treated as workers.

- Reference period for determining a person as worker and non-worker is one year preceding the date of enumeration.

Main Workers

Those workers who had worked for the major part of the reference period (i.e. 6 months or more) are termed as Main Workers.

Marginal Workers

Those workers who had not worked for the major part of the reference period (i.e. less than 6 months) are termed as Marginal Workers.

Cultivator

For purposes of the census a person is classified as cultivator if he or she is engaged in cultivation of land owned or held from Government or held from private persons or institutions for payment in money, kind or share. Cultivation includes effective supervision or direction in cultivation.

A person who has given out her/his land to another person or persons or institution(s) for cultivation for money, kind or share of crop and who does not even supervise or direct cultivation in exchange of land, is not treated as cultivator. Similarly, a person working on another person's land for wages in cash or kind or a combination of both (agricultural labourer) are not treated as cultivator.

Agricultural Labourers

A person who works on another person's land for wages in money or kind or share is regarded as an agricultural labourer. He/she has no risk in the cultivation, but merely works on another person's land for wages. An agricultural labourer has no right of lease or contract on land on which he/she works.

Household Industry Workers

Household Industry is defined as an industry run by one or more members of the household at home or within the village in rural areas and only within the precincts of the house where the household lives in urban areas. The larger proportion of workers in the household industry consists of members of the household. The industry is not run on the scale of a registered factory which would qualify or has to be registered under the Indian Factories Act.

The main criterion of a Household industry even in urban areas is the participation of one or more members of a household. Even if the industry is not actually located at home in rural areas there is a greater possibility of the members of the household participating even if it is located anywhere within the village limits. In the urban areas where organized industry takes greater prominence, the Household Industry is confined to the precincts of the house where the participants live. In urban areas, even if the members of the household run an industry by themselves but at a place away from the precincts of their home, it is not considered as a Household Industry. It should be located within the precincts of the house where the members live in the case of urban areas.

Household Industry relates to production, processing, servicing, repairing or making and selling (but not merely selling) of goods. It does not include professions such as a Pleader, Doctor, Musician, Dancer, Waterman, Astrologer, Dhobi, Barber, etc., or merely trade or business, even if such professions, trade or services are run at home by members of the household.

Other Workers

All workers, i.e., those who have been engaged in some economic activity during the last one year, but are not cultivators or agricultural labourers or in Household Industry, are 'Other Workers'. The type of workers that come under this category of 'Other Worker' include all government servants, municipal employees, teachers, factory workers, plantation workers, those engaged in trade, commerce, business, transport, banking, mining, construction, political or

social work, priests, entertainment artists, etc. In effect, all those workers other than cultivators or agricultural labourers or household industry workers are 'Other Workers'.

Sex Ratio

Sex ratio has been defined as the number of females per 1000 males in the population. It is expressed as 'number of females per 1000 males'.

$$\text{Sex-ratio} = \frac{\text{Number of females}}{\text{Number of males}} \times 1000$$

Sex Ratio (0-6 years)

Sex-ratio (0-6 years) has been defined as the number of females in age-group 0-6 years per 1000 males in the same age-group in the population. It is expressed as 'number of females per 1000 males'.

$$\text{Sex-ratio (0-6 years)} = \frac{\text{Number of females (0-6)}}{\text{Number of males (0-6)}} \times 1000$$

Literacy Rate

Literacy rate of population is defined as the percentage of literates to the total population aged 7 years and above.

$$\text{Literacy rate} = \frac{\text{Number of Literates}}{\text{Population aged 7+}} \times 100$$

Work Participation Rate

Work participation rate is defined as the percentage of total workers (main and marginal) to total population.

$$\text{Work participation rate} = \frac{\text{Total Workers (Main+Marginal)}}{\text{Total Population}} \times 100$$

Human Development Index (HDI)

The methodology for calculating HDI as adopted by the UNDP covers three indicators viz; (i) longevity index measured by the Life Expectancy at birth, (ii) educational attainment index measured as the combination of adult literacy rate and combined enrolment ratio (primary and secondary) and (iii) the standard of living index measured by the real GDP per capita expressed in Purchasing Power Parity dollars (US) i.e. PPP\$. The methodology for obtaining indicators (ii) and (iii) has been identical with that used by the UNDP in various Global and regional Human Development Reports. There is a deviation from the standard methodology in calculating health index. Infant Mortality Rate in place of Life Expectancy at Birth has been used to arrive at health index as data on life expectancy at birth by districts is not available. Construction of life tables was also not possible as the Census data on district wise population by single year of age has not been made available by the Registrar General of India.

Health/ Life Index

Infant Mortality Index has been computed by using actual, maximum and minimum values of Infant Mortality Rate which then, has been connected into life index by taking former's distance from unity.

Steps for calculating Health/ Life index

:

$$\text{Infant Mortality Rate Index} = \frac{X_1 - X_{\min}}{X_{\max} - X_{\min}}$$

Where

X_1 = Infant Mortality rate

X_{\max} = Maximum value

X_{\min} = Minimum value

Health Index or life index = 1 – Infant Mortality Rate Index

Maximum and minimum values for Infant Mortality Rate have been taken as 166 (Damoh, Madhya Pradesh) and 22 (Hyderabad, Andhra Pradesh) respectively.

Educational Attainment Index

Educational attainment index has been worked out by combining adult literacy ratio and combined enrolment ratio for primary and secondary levels of education (Standards I to X). Enrolment ratios for tertiary level of education could not be incorporated because of non availability of the same. Enrolment ratios for primary and secondary enrolment ratios have been worked out by the Planning Department, Himachal Pradesh based on the enrolment figures provided by the Directorate of Primary and Secondary Education, Government of Himachal Pradesh. Actual enrolments have been divided by the population in that particular age group to arrive at enrolment ratios.

Steps for calculating educational attainment index:

$$\text{i) Adult literacy Rate Index} = \frac{X_1 - X_{\min}}{X_{\max} - X_{\min}}$$

Where

$$\begin{aligned} X_1 &= \text{Adult literacy rate} \\ X_{\min} &= \text{Minimum Value} \\ X_{\max} &= \text{Maximum value} \end{aligned}$$

$$\text{ii) Combined enrolment ratio index} = \frac{X_1 - X_{\min}}{X_{\max} - X_{\min}}$$

Where

$$\begin{aligned} X_1 &= \text{Combined enrolment ratio (I to X)} \\ X_{\min} &= \text{Minimum Value} \\ X_{\max} &= \text{Maximum value} \end{aligned}$$

$$\text{iii) Educational Attainment index} = \frac{2}{3} \times (\text{Adult literacy rate index}) + \frac{1}{3} \times (\text{Combined enrolment ratio index})$$

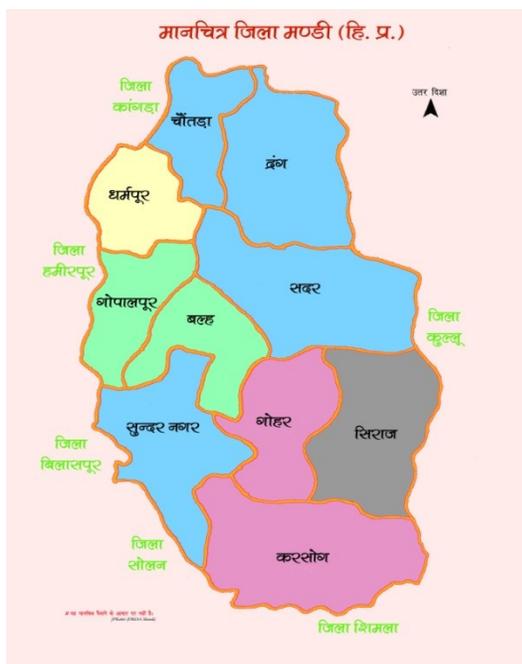
Maximum and minimum values for both adult literacy rate and combined enrolment ratio have been taken as 100 and 0 respectively.

Constraints:

- ❖ The combined Enrollment Rate Index can not be computed in the absence of population data in that age group; hence the Educational Attainment Index can also not be computed.
- ❖ Data regarding the Economic parameters i.e. block-wise per capita income, GDP and data related to Below Poverty Line families were not made available.
- ❖ In the absence of these data Income Index and ultimately Human Development Index for the different blocks of Mandi district can not be worked out. Therefore, inter block comparisons were made with the help of data available from various sources in the current study.
- ❖ Non availability of time series data on most of the indicators.

Profile of the District

3.1 Mandi in Historical Perspective

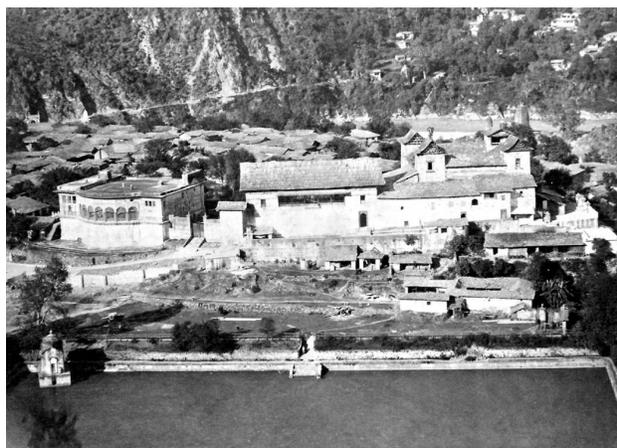


The present District of Mandi was formed with the merger of two princely states Mandi and Suket on 15th April, 1948, when the state of Himachal Pradesh came into existence. Ever since the formation of the district, it has not witnessed any changes in its jurisdiction.

The state of Suket is said to have been founded by Bir Sen, an ancestor of the Sen Dynasty of Bengal. The separation of Mandi from Suket took place about the year 1200 AD. Upto that time, it was the single state of Suket. Mandi emerged as a separate state in the beginning of the sixteenth century. Ajbar Sen was the first great ruler of Mandi,

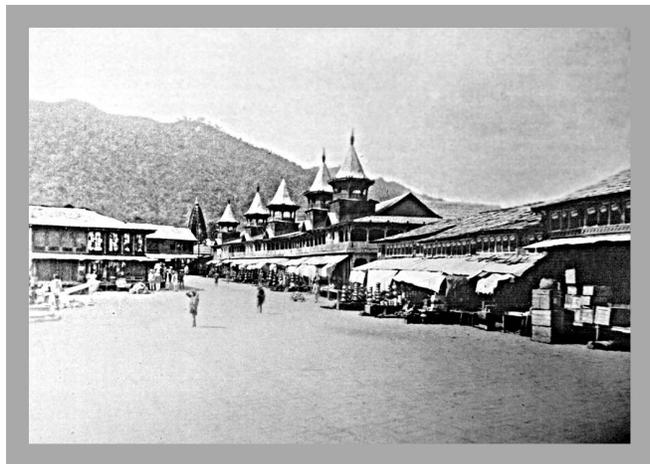
who founded Mandi Town in 1927 AD. He was probably the first to assume the designation of Raja. He built a palace here and the temple of Bhut Nath.

Down the line of descendants was Raja Sidh Sen, who succeeded Raja Gur Sen in 1678 AD. Mandi had never been so powerful before and after his reign. Guru Govind Singh, the tenth Guru of the Sikhs visited Mandi during his reign in the close of the 17th century. He built the great tank before the palace. He also built the temples of “Sidh Ganesh” and “Trilok Nath”.



(View of old time Mandi State)

The history of both the state of Mandi and Suket is full with wars among themselves and other adjoining states. These two states had always been rivals and generally enemies, but there was no great result of their warfare.



On 10th November, 1921, both the states of Mandi and Suket were transferred from the political control of Punjab Government to that of Government of India till 15th August, 1947. The only place in the district that has an early mention in literature is Rewalsar and it is mentioned in the Skanda Purana as a sacred place of pilgrimage. It is believed

(State time traditional market at Chohтта Bazar) that Karnpur, a small village, was founded by Karan, a hero of Mahabharata. According to the Tibetan tradition, Padam Sambhab (750 - 800 AD), the great Buddhist Patriarch, who was summoned by King Tisong-De-Tsen of Tibet for preaching Buddhism, hailed from Zohar, which represents the country round about Rewalsar. On the basis of this it is concluded that Mandi must have been a great place of Buddhist learning as well about this time.

3.2 Geography of the District

The district is situated between $31^{\circ}-13'-50''$ and $32^{\circ}-04'-30''$ north latitude and $76^{\circ}-37'-20''$ and $77^{\circ}-23'-15''$ east longitude. It is bounded by Kangra on the north-west, Hampirpur and Bilaspur in the west, Arki tehsil of Solan district in the south, Shimla district in the south-west and Kullu district in the east.

The district has 2 main rivers viz; the Beas and the Satluj. The river Beas enters the district from close to Bajaura, at the boundary of Kullu and leaves the district at Sandhol. The Mandi town is also located on the banks of this river. For the greater part of its length, it runs between high banks and as it is never of great width, though the current is swift, especially during the rains. Practically the whole of the district drains into the Beas with only the south-east corner situated on the Satluj watershed. Within the district the principal tributaries of the

Beas on the north bank are Uhl, Luni, Rana and Binu and on the south bank are the Hanse, Tirthan, Bakhli, Jiuni, Suketi, Ranodi, Son and Bakar.



(View of river Beas and Suket Khud)

The greater part of the district is mountainous terrain with the main ranges of mountains running from the north to the south with the system being broken up by innumerable transverse spurs. The most conspicuous is the Jalori range which is crossed by a high road from Kullu to Shimla by a pass named as Jalori pass. It divides the watersheds of the Satluj and the Beas and on its northern slopes is unusually well wooded with deodar (*Cedrus deodara*) and blue pine (*Pinus wallichiana*) forests of great value. The highest peak in the range is Shikari Devi (11,060 feet). Its summit being crowned by a shrine to a local goddess. The range throws off three main spurs which extend throughout the tract known as the Mandi Saraj. To the north of the Beas is the Nargu range, a continuation of the Bir Bhangal, separating Mandi from Kullu proper and crossed by the Bhubu pass (9,480 feet). The mountains here run upto 13000 feet and the slopes often being very precipitous while the valleys are deep.



(International Paragliding site at Billing)

Almost parallel and running down the centre of the district is the Ghoghar-ki-Dhar, of which the slopes are fairly gentle. It is not well wooded, but contains large expanses of excellent grazing and the salt quarries of Drang and Gumma.

The Sikandar Range commences from the trijunction with Suket and Bilaspur and from there runs northward for fifty miles. The range contains some good forests of chil pine, but the greater part of it consists of rich grass slopes. It's name is attributed to Sikander Lodhi, who, 375 years before the reign of Akbar, is supposed to have crossed it on his way to the conquest of Kangra.



(Indigenous Ropeway on Beas River)

The range of altitudes in the district is high, with the highest point being around 13,000 feet on the Kullu border and the lowest point 1,800 feet near Sandhol where the Beas leaves the district.

3.3 Administrative make-up

Administratively, at present the district has nine Tehsils, seven Sub-tehsils, ten Community Development Blocks, five Local Urban Bodies (two Municipal Committees and three Nagar Parishads), 473 Panchayats constituting 2877 Wards, ten Panchyat Samities, and a Zila Parishad. There are five Forest Divisions in the district.

3.4 Area and Population

The information on total area and population for the district is given in Table-3.1. The area of Mandi district is 3950 square kilometers which makes up 7.10 per cent of the total state area. Of the total area in the district rural area comprised of 99.33 per cent while urban area is 0.67 per cent. The total number of villages in the district are 3338 of which 85 per cent are habitated and rest inhabited and number of towns are 5 while the total households in the district are 182378. Of the total population more than 93 per cent reside in the rural areas and rest in urban areas. The average population for habitated village comes to 251. The population density per square kilometer works out to 214 in rural areas and 2263 in urban areas with an average density of 228 persons for the district as a whole. The population of

scheduled caste and scheduled tribe population to total population is 28.98 and 1.17 per cent respectively, for the whole district. The number of females per thousand of males is estimated at 1013 for rural areas and 894 for urban areas, with a figure of 1012 for the district as a whole.

3.5 Religious Persuasions

Table-3.1 shows that Hindus constitute the majority (98.20%) followed by Muslims (0.92%), Sikhs (0.53%), Bodhs (0.32%) and rest 0.03 per cent comprise of other religious groups. People in Mandi district have strong belief in God as the religion regulates the actions

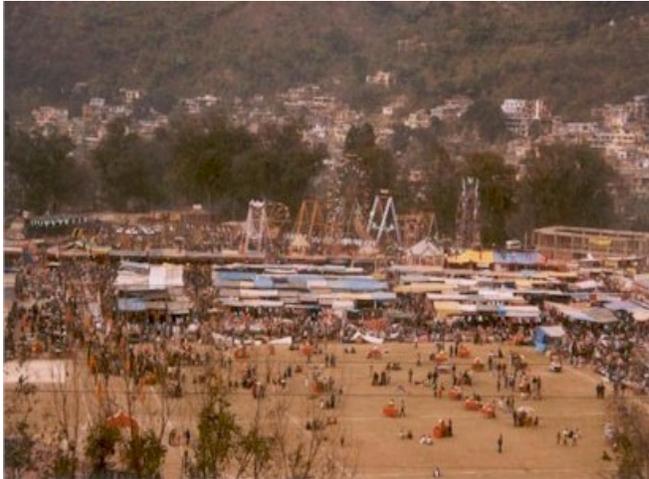


(Local Deities)

in almost every sphere of life. Madhav Rao is the principal deity among the numerous Gods worshiped by the people in different parts of the district.

Table 3.1: Area and population.

| | Particulars | Rural | Urban | Total |
|------|---|---------|-------|--------|
| A. | Area (sq. km) | 3923.61 | 26.39 | 3950 |
| B | Total population (2001 census) (No.) | 840362 | 60982 | 901344 |
| i) | Male | 415676 | 32196 | 447872 |
| ii) | Female | 424686 | 28786 | 453472 |
| a) | Scheduled caste (No.) | 249142 | 12091 | 261233 |
| i) | Male | 124799 | 6284 | 131083 |
| ii) | Female | 124343 | 5807 | 130150 |
| iii) | Percentage of SC population to total population | 29.65 | 19.83 | 28.98 |
| b) | Scheduled tribe (No.) | 10149 | 415 | 10564 |
| i) | Male | 5055 | 252 | 5307 |
| ii) | Female | 5094 | 163 | 5257 |
| iii) | Percentage of ST population in total population | 1.20 | 0.68 | 1.17 |
| c) | Literacy rate (%) | 74.08 | 90.48 | 75.24 |
| i) | Male | 85.30 | 93.85 | 85.94 |
| ii) | Female | 63.27 | 85.79 | 64.82 |
| d) | Religion-wise population (%) | | | |
| i) | Hindu | 98.62 | 92.37 | 99.20 |
| ii) | Muslim | 0.82 | 2.27 | 0.92 |
| iii) | Sikh | 0.25 | 4.37 | 0.53 |
| iv) | Buddhist | 0.28 | 0.81 | 0.32 |
| v) | Others | 0.03 | 0.18 | 0.03 |
| e) | Density of population per square kilometer | 214 | 2268 | 228 |
| f) | No. of females per thousand males | 1013 | 894 | 1012 |



(International Shivratri Fair at Mandi)

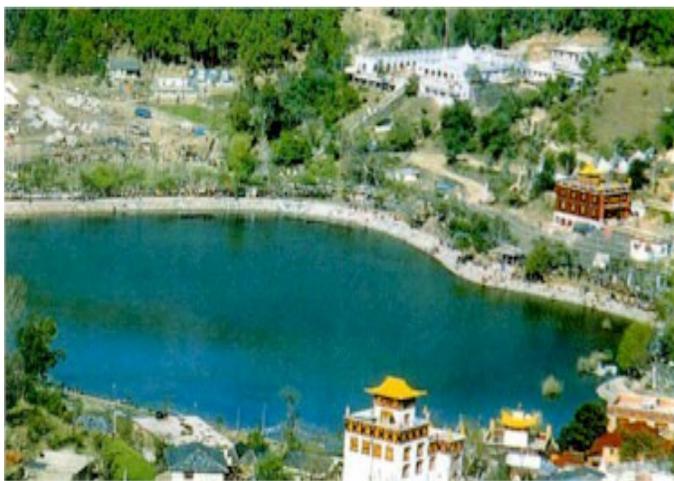
not only a land of Gods but numerous fairs and festivals also constitute an important part of hill culture. Almost every village is linked with some fairs and festivals. The most important fairs celebrated in the district are Shivaratri fair, Nabahi Devi fair, Baishakhi fair at Rewalsar, Nalwar fair, Kamaksha fair, Kamrunag fair, Kuthah fair, Prashar fair, Majru Madhav fair; Mamail fair in Karsog etc. Besides this, there also exist places of

The worship of Lord Shiva and Devi the goddess, is also prominent. Shiva is known in several forms, the most common being the Panchavaktra, Trilokinath, Ardh Nareshwara etc. There are number of local Gods, known as Devtas, throughout the district. A glimpse into the belief of the people in these Devtas can be had during the Shivaratri Fair. Mandi district is



(Prasher Lake)

archeological importance. In addition to this there exist places which are equally shared by Hindus, Sikhs and the Buddhists. There are numerous places in the district which can attract large number of tourists for trekking, sight seeing, eco-tourism, and range of outdoor recreational activities. The need is to tap this potential religious and eco-tourism.



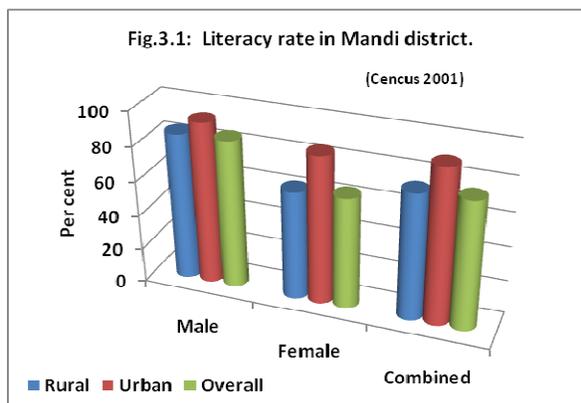
(Lake and Buddhist Temple at Rewalsar)

3.6 Literacy

Literacy is catalytic to all types of human resource development and therefore, an important indicator of advancement of any region. According to 2001 census, the percentage of literacy was 75.24 per cent in Mandi district as against 76.5 per cent for the state as a whole. The literacy among females was found 64.82 per cent in contrast to males which was estimated at 85.94 per cent for the district as a whole. The literacy was higher (90.48%) in urban areas, as compared to the rural areas (74.08%) (Fig.-

3.1). This may be attributed to relatively strong educational facilities prevalent in urban areas. With the pace of development, in terms of transport, communication network, growth in financial institutions and industries it is expected that literacy rate will further improve. There are 1705, 254, 145, 75, 8 and 2 primary,

middle, high, senior secondary schools, colleges and other training institutions respectively in the district. The teacher - pupil ratio was 1:23 for primary schools; 1:51 for middle schools; 1:21 for high and 1:14 for senior secondary schools in the district.



3.7 Occupational Distribution

Occupational distribution provides an index of participation of the population in the economic activities, which has impact on overall human development; such classification according to 2001 Census is presented in table- 3.2. Of the total population in the district nearly 50 per cent constitute the total workers. The proportion of main workers in the total working population works out to 65.83 per cent in the district. The cultivators comprise of 42.65 per cent, Agricultural labourers 0.32 per cent; other workers 21.90 per cent and rest are 0.96 per cent. The marginal workers are around 40.77 per cent in the total working force. The population of non workers was more in urban areas (66.12%) as compared to rural areas (48.40%) of their respective population.

Table 3.2: Occupational distribution of the population in Mandi district according to census 2001.

| Sl. No. | Category | Number of Persons | | |
|---------|--|--------------------|-------------------|--------------------|
| | | Rural | Urban | Total |
| | Total worker | 433628 (51.60) | 20664 (33.88) | 454292 (50.40) |
| a) | Cultivator | 193357 (23.00) | 403 (0.66) | 193760 (21.50) |
| b) | Agricultural labourer | 1410 (0.17) | 32 (0.05) | 1442 (0.16) |
| c) | Household marketing, processing and servicing and repairs | 4139 (0.49) | 227 (0.37) | 43.66 (0.48) |
| d) | Other workers | 81973 (9.75) | 17535 (28.75) | 99508 (11.04) |
| | Total main workers | 280879 (33.42) | 18197 (29.84) | 299076 (33.18) |
| e) | Marginal workers | 182749 (21.75) | 2467 (4.04) | 185216 (20.55) |
| i) | Marginal cultivators | 164946 (19.63) | 766 (1.26) | 165712 (18.38) |
| ii) | Marginal agricultural labourers | 5007 (0.60) | 69 (0.11) | 5076 (0.56) |
| iii) | Marginal household workers | 2191 (0.26) | 190 (0.31) | 2381 (0.26) |
| iv) | Other marginal workers | 10605 (1.26) | 1442 (2.36) | 12047 (1.34) |
| f) | Non workers | 406734 (48.40) | 40318 (66.12) | 447052 (49.60) |
| | Total | 840362 (100.00) | 60982 (100.00) | 901344 (100.00) |

Figures in parentheses are percentages to total population

3.8 Land Use Pattern

Analysis of land use pattern assumes significance for developing proper land use strategies for the selection of enterprises and optimal resource allocations. Effective use of scarce agricultural land resource has repercussion on human development. Land use pattern in the district has been presented in Table-3.3 for the year 2002-03 and 2004-05. The table shows that of the total geographical area, the area under forest comprised of 44.08 per cent. The land put to non-agricultural uses and barren land together accounted for 6.29 per cent of total geographical area. The area under culturable wasteland, permanent pastures and miscellaneous trees, crops and grooves comprised of 1.13, 24.23 and 0.06 per cent respectively. So far as the net area sown and total cropped area are concerned, the district seems to have

enough scope for incorporating new technologies and high pay off enterprises in the crop and livestock sectors for enhancing the income status of the farming community in the district. The cropping intensity worked out to 185.20 per cent for the year 2004-05.

Table 3.3: Land use pattern in Mandi district

| Sl. No | Classification | (Hectares) | |
|--------|---|-------------------|-------------------|
| | | 2002-03 | 2004-05 |
| 1. | Geographical area (by village papers) | 397823 | 397823 |
| 2. | Area under Fruits | 175375 (44.08) | 175375 (44.08) |
| 3. | Not available for cultivation | 25018 (6.29) | 25018 (6.29) |
| i) | Barren and uncultivated land | -- | 1583 (0.40) |
| ii) | Land put to non agricultural use | 25018 (6.29) | 23432 (5.89) |
| 4. | Other uncultivated land excluding current fallows | 101070 (25.40) | 101114 (25.42) |
| i) | Culturable waste | 4419 (1.11) | 4507 (1.13) |
| ii) | Permanent pastures and grazing land | 96385 (24.23) | 96385 (24.23) |
| iii) | Land under miscellaneous tree crops and grooves | 266 (0.07) | 222 (0.06) |
| 5 | Fallow land | 9989 (2.51) | 10701 (2.69) |
| i) | Current fallows | 9656 (2.43) | 10518 (2.64) |
| ii) | Other fallows | 333 (0.08) | 183 (0.05) |
| 6. | Net area sown | 86371 (21.71) | 85615 (21.52) |
| 7. | Total cropped area | 159854 (40.18) | 158557 (39.85) |
| 8. | Area sown more than once | 73483 (18.47) | 72942 (18.33) |

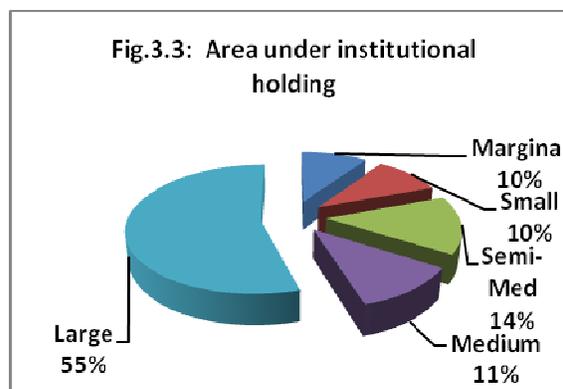
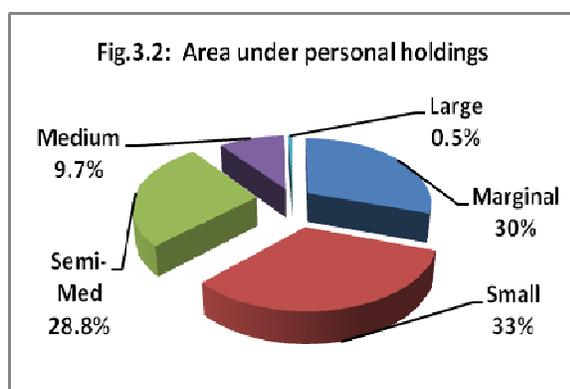
Source: Statistical Abstract of Mandi district 2006.

Figures in parentheses are percentage to total geographical area.

3.9 Land Holding

The pattern of land holding in the district has been presented in Table-3.4. According to Agricultural Census 1995-96, there were 136696 operational holdings in the district out of which 99.86 per cent fall in the category of personal holding and 0.14 per cent under institutional holdings. The average size of operational holding in the district works out to 0.948 hectare. The table shows that 66.50 per cent of farmers in the district have the holding less than 1 hectare and they form the maximum proportion of the agriculture land owners. The small,

semi-medium, medium and large farms constitute 22.06, 9.65, 1.74 and 0.05 per cent of the total number of holdings respectively. The analysis of holdings on the basis of operated area reveals that holdings up to 2 hectares account for about 62.6 per cent of total operated area. The semi-



medium and medium size holdings, which together are 11.39 per cent of total holdings accounted for 36.67 per cent of total operated area. Large sized farms which comprise only 0.05 per cent control (0.73%) area. The pattern of distribution of holdings shows the skewed distribution of land among the farmers of Mandi district.

Table 3.4: Number, area and average operational holding in Mandi district for the year 1995-96.

| Category | Personal holding | | Institutional holding | | Total holding | |
|-----------------------|--------------------|-----------------------|-----------------------|--------------------|--------------------|-----------------------|
| | No. | Area | No. | Area | No. | Area |
| Marginal (up to 1 ha) | 90791 (66.51) | 38774.89 (30.00) | 114 (60.00) | 44.39 (9.59) | 90905 (66.50) | 38789.28 (29.93) |
| Small- (1 - 2 ha) | 30125 (20.07) | 42293.80 (32.75) | 29 (15.26) | 45.49 (9.80) | 30154 (22.06) | 42339.29 (32.67) |
| Semi medium (2-4 ha) | 13169 (9.65) | 34775.82 (26.93) | 28 (14.74) | 67.31 (14.51) | 13197 (9.65) | 34843.13 (26.89) |
| Medium (4-10 ha) | 2366 (1.73) | 12615.95 (9.77) | 10 (5.26) | 53.07 (11.44) | 2376 (1.74) | 12669.02 (9.78) |
| Large (10 & above ha) | 55 (0.04) | 695.82 (0.55) | 9 (4.74) | 253.75 (54.68) | 64 (0.05) | 949.57 (0.73) |
| Total | 136506 (100.00) | 129126.28 (100.00) | 190 (100.00) | 464.01 (100.00) | 136696 (100.00) | 129590.20 (100.00) |
| Average size (ha) | -- | 0.946 | -- | 2.442 | -- | 0.948 |

Source: Statistical Abstract, for Mandi district 2006

Figures in parentheses are percentage to total operational holdings and area.

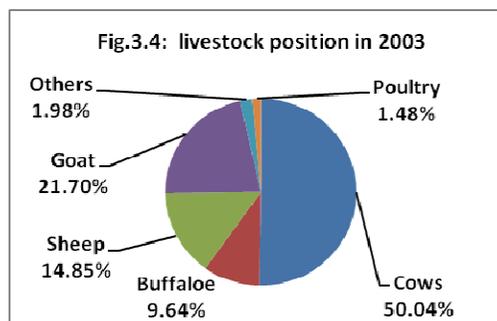
3.10 Animal Husbandry

Besides agriculture, animal husbandry plays a very important role in the economy of Mandi district. During the year 2003, the total number of livestock in the district was 874231. Cows accounted for the maximum proportion (50.04%) followed by goats (21.70%), sheep (14.85%), buffaloes (9.64%) others (1.98%), poultry birds (1.48%) and rabbit population was 0.22 per cent of the total population of livestock in the district in 2003 (Table-3.5 and Fig.-3.4). While the percentage of cows has increased in comparison to the position in 1997, the number of buffaloes and sheep & goats has decreased in percent terms. This reflects the pressure on the farms on account of availability of grazing areas, as well as the human labour required for the same.

Table 3.5: Number of livestock in Mandi district

| Animals | 1997 | 2003 |
|----------------------|------------------|-----------------|
| Cows | 438050 (42.35) | 437536 (50.04) |
| Buffaloes | 108416 (10.48) | 84301 (9.64) |
| Sheep | 197769 (19.12) | 129844 (14.85) |
| Goats | 202938 (19.62) | 189745 (21.70) |
| Others | 5317 (0.51) | 17333 (1.98) |
| Sub total | 952490 (92.08) | 859359 (98.29) |
| Poultry birds | 81909 (7.92) | 12921 (1.48) |
| Grand total | 1034399 (100.00) | 874231 (100.00) |

Source: Statistical Abstract, for Mandi district 2006



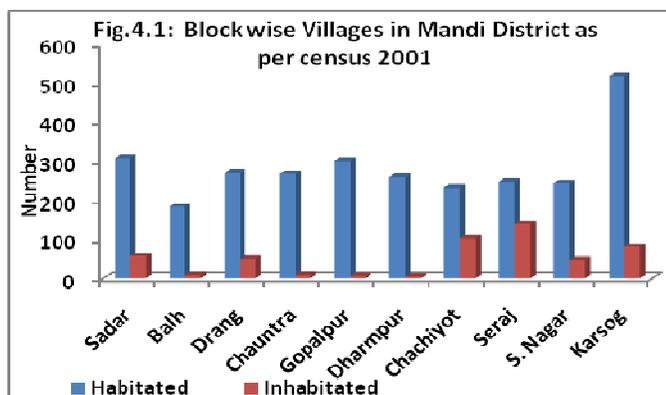
3.11 Irrigation and Drinking Water Supply

Availability of irrigation is an important indicator of agricultural development. Due to scanty rainfall during crop growing seasons, irrigation plays an important role in increasing the productivity of crops. It also is important for stability of the crop production. In Mandi district 14.72 per cent of the net sown area was under irrigation during the year 2003-04. The main source of irrigation is Kuhls which feed about 98.40 per cent of total irrigated area in the district. Wells accounted for only 1.60 per cent of the net irrigated area. Almost all the villages in the district have been covered under drinking water facilities by 2003-04.

CHAPTER-IV

Demographic Features

A deeper analysis and understanding of the total population of an area and its composition is important for planning and execution of development strategies for that area. It is in this regard that the analysis of demographic profile of the area becomes important. District Mandi is an important district and has been an educational and cultural centre of the state. People of the district are known to be religious, hardworking and educationally active. This is amply reflected in the number of temples and the number of educated persons in Mandi. In fact, the Mandi town is also commonly known “Chhoti Kashi” of the state.



As pointed out earlier, the district has 10 community development blocks with Mandi Sadar as the 2nd largest block so far as number of habitated villages are concerned. In this regard, Karsog is the largest block with 518 habitated villages as per the 2001 census (Table-4.1 and Fig.-4.1). Table-4.1 reveals that during the ten year period from 1991-2001 the number of habitated villages in the district has increased by 0.53 per cent, while the

Table 4.1: Block-wise villages in Mandi district as per census report.

| Blocks | Census 1991 No. of villages | | Census 2001 No. of villages | | % change over 1991 | |
|--------------|--------------------------------|------------|--------------------------------|------------|--------------------|--------------|
| | Habitated | Inhabited | Habitated | Inhabited | Habitated | Inhabited |
| Sadar | 310 | 55 | 308 | 57 | -0.64 | 3.64 |
| Balh | 182 | 11 | 184 | 9 | -1.10 | 18.18 |
| Drang | 272 | 48 | 271 | 49 | -0.37 | 2.08 |
| Chauntra | 269 | 9 | 268 | 10 | -0.37 | 11.11 |
| Gopalpur | 302 | 5 | 301 | 6 | -0.33 | 20.00 |
| Dharampur | 258 | 6 | 259 | 5 | 0.39 | -16.67 |
| Chachyot | 225 | 109 | 232 | 102 | 3.11 | -6.42 |
| Seraj | 236 | 152 | 248 | 140 | 5.08 | -7.89 |
| Sunder Nagar | 243 | 47 | 244 | 46 | 0.41 | -2.13 |
| Karsog | 521 | 78 | 518 | 81 | -0.57 | 3.85 |
| Total | 2818 | 520 | 2833 | 505 | 0.53 | -2.88 |

Source : Statistical Abstract 2002 and 2006

number of inhabited villages has shown a decline of 2.88 per cent. Across the blocks, the block showing increase in habitated villages has also shown decrease in inhabited villages and vice versa. Wherever, there have been decrease in habitated villages, the relative increase in in inhabited villages is much higher. In Dharampur, Chachyot, Seraj and Sunder Nagar the habitated villages have shown an increase. Here also, the decline in inhabited villages is relatively higher. This may be attributed to the growth in exodus of rural population to urban areas, reallocation of block area in the district, re-settlement of people near roads and improvement in other infrastructural facilities.

4.1 Population

So far as Gender-wise population make up of different blocks of the district is concerned, Mandi Sadar is the largest block with the total population of 1,14,791. This is followed by Balh, Karsog and Sunder Nagar with the total population of 1,00,151, 93,144 and 92,930, respectively. These blocks account for 13.65, 11.91, 11.08 and 11.05 per cent of the total population in all the blocks of the district respectively. The urban population of the district accounted for only 6.76 per cent of the total population.

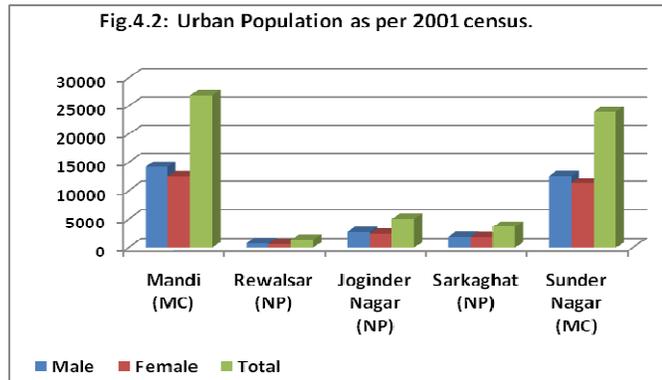
Table 4.2: Block-wise population in Mandi district.

| Blocks | Census 1991 | | | Census 2001 | | | % Change over 1991 | | |
|------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------|-------|
| | Male | Female | Total | Male | Female | Total | Male | Female | Total |
| Sadar | 48410 (13.51) | 47077 (12.86) | 95487 (13.18) | 57861 (13.91) | 56930 (13.40) | 114791 (13.65) | 19.52 | 20.90 | 20.21 |
| Balh | 43561 (12.16) | 43377 (11.85) | 86938 (12.00) | 50243 (12.08) | 49908 (11.75) | 100151 (11.91) | 15.34 | 15.06 | 15.20 |
| Drang | 31053 (8.67) | 31567 (8.62) | 62620 (8.64) | 36341 (8.74) | 37242 (8.76) | 73583 (8.75) | 17.03 | 17.98 | 17.50 |
| Chauntra | 26990 (7.53) | 31922 (8.72) | 58912 (8.13) | 31028 (7.46) | 35564 (8.37) | 66592 (7.92) | 14.96 | 11.41 | 13.18 |
| Gopalpur | 36332 (10.14) | 39475 (10.78) | 75807 (10.46) | 40915 (9.84) | 44328 (10.43) | 85243 (10.14) | 12.61 | 12.29 | 12.45 |
| Dharampur | 32608 (9.10) | 38278 (10.45) | 70886 (9.78) | 37404 (8.99) | 41787 (9.83) | 79191 (9.42) | 14.70 | 9.17 | 11.93 |
| Chachyot | 26272 (7.33) | 25325 (6.91) | 51597 (7.12) | 30457 (7.32) | 30293 (7.13) | 60750 (7.22) | 15.93 | 19.62 | 17.77 |
| Seraj | 31907 (8.90) | 30272 (8.27) | 62181 (8.58) | 37556 (9.03) | 36431 (8.57) | 73987 (8.80) | 17.70 | 20.34 | 19.02 |
| Sunder Nagar | 40979 (11.41) | 39679 (10.02) | 80658 (11.13) | 47101 (11.33) | 45829 (10.79) | 92930 (11.05) | 14.94 | 15.49 | 15.21 |
| Karsog | 40028 (11.17) | 39008 (10.65) | 79036 (10.91) | 46770 (11.25) | 46374 (10.91) | 93144 (11.08) | 16.84 | 18.88 | 17.85 |
| Total Blocks | 358140 (100.00) | 365982 (100.00) | 724122 (100.00) | 415676 (100.00) | 424686 (100.00) | 840362 (100.00) | 16.06 | 16.04 | 16.05 |
| Urban Population | 27606 | 24644 | 52250 | 32196 | 28786 | 60982 | 16.63 | 16.81 | 16.71 |
| District | 385746 | 390627 | 776372 | 447872 | 453472 | 901344 | 16.10 | 16.09 | 16.10 |

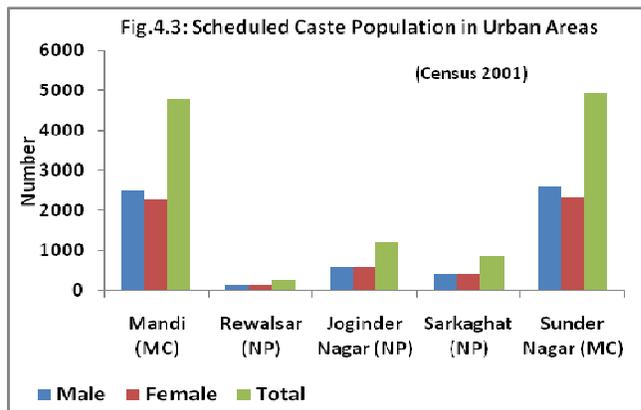
Figures in parentheses are percentage to respective total of all the blocks.

Source: Census Reports 1991, 2001.

Gender-wise make up of the population for the census of 1991 and 2001 is presented in Table- 4.2. It is evident from the table that female population is marginally higher than the male in this district. Female population forms 50.31 per cent of the total population of the total district. Similarly, rural female population accounted for 50.54 per cent of total rural population. Block-wise changes in male and female population in 2001,



over the census of 1991, shows that the female population increased by about 20.90 per cent in Mandi Sadar followed by 20.34% in Seraj block. These two blocks were followed by Chachyot (19.62%), Karsog (18.88%) and Darang (17.98%). As in case of female population, the increase in male population was also highest in Mandi Sadar. This increase is shown to be 19.52 per cent in 2001 over the census of 1991. Other prominent blocks with regard to increase in male



population are Darang (17.03%), Seraj (17.70), Karsog (16.84%) and Chachyot (15.93%). In case of urban population the increase over 1991 census recorded was 16.81 per cent in case of female and 16.63 per cent in case of male population (Fig.- 4.2 and Appendix-I).

Table-4.3 presents the changes in gender-wise scheduled caste (SC) population of the different blocks in the district. A perusal of the table reveals that Balh block has the highest SC population (17.30%). The block is followed by Sunder Nagar and Mandi Sadar in this regard which account for 13.48 and 13.12 per cent of the total scheduled caste population. So far as gender-wise changes in scheduled caste population in different blocks is concerned, it can be noted from the table that female population increased by about 21.88 per cent in Seraj block, followed by 21.52 per cent in Karsog and 21.10 per cent in Sadar block. Similar trend was found in case of increase of male population in different blocks. Overall, female population increased by 16.14 per cent and the male population by 15.92 per cent in the district. Total scheduled caste population in the

district is noted to have increased by 16.04 per cent in 2001, over the figures of 1991 census. In case of scheduled caste population in the urban area of the district, Sundar Nagar Municipal area has the largest population with 40.83 per cent, followed by Mandi with 39.86 per cent of total urban scheduled caste population (Fig.-4.3 and Appendix-II). The decadal growth of SC population in urban areas was recorded 9.27 per cent. However, for the Mandi district as a whole, the scheduled caste population increased by 15.71 per cent during 1991 to 2001.

Table 4.3: Block-wise scheduled caste population in Mandi district.

| Blocks | Census 1991 | | | Census 2001 | | | % Change over 1991 | | |
|---------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|-------|-------|
| | M | F | T | M | F | T | M | F | T |
| Sadar | 13957 (12.96) | 13488 (12.59) | 27445 (12.78) | 16500 (8.41) | 16200 (13.03) | 32720 (13.12) | 18.22 | 20.10 | 19.16 |
| Balh | 19012 (17.66) | 18661 (17.37) | 37673 (17.54) | 21794 (17.6) | 21307 (17.13) | 43101 (17.30) | 14.63 | 14.17 | 14.40 |
| Drang | 6321 (5.27) | 6286 (5.87) | 12607 (5.87) | 7173 (5.74) | 7184 (5.77) | 14347 (5.75) | 13.48 | 14.28 | 13.80 |
| Chauntra | 6753 (6.27) | 7479 (6.89) | 14232 (6.62) | 7818 (6.26) | 8643 (6.95) | 16461 (6.60) | 15.77 | 15.56 | 15.66 |
| Gopalpur | 9709 (9.01) | 10068 (9.40) | 19777 (9.21) | 10860 (8.70) | 11149 (8.96) | 22009 | 11.85 | 10.73 | 11.28 |
| Dharampur | 7375 (6.85) | 7736 (7.22) | 15111 (7.03) | 8090 (6.48) | 8312 (6.68) | 16402 (6.58) | 9.69 | 7.44 | 8.54 |
| Chachyot | 9096 (8.44) | 8895 (8.30) | 17991 (8.37) | 10565 (8.46) | 10538 (8.47) | 21103 (8.47) | 16.15 | 18.47 | 17.29 |
| Seraj | 8553 (7.94) | 8186 (7.64) | 16739 (7.79) | 10339 (8.29) | 9977 (8.02) | 20316 (8.15) | 20.88 | 21.88 | 21.36 |
| Sunder Nagar | 14682 (13.63) | 14408 (13.45) | 29090 (13.54) | 16976 (13.60) | 16622 (13.37) | 33598 (13.48) | 15.62 | 15.36 | 15.49 |
| Karsog | 22197 (11.32) | 11842 (11.06) | 24039 (11.19) | 14684 (11.19) | 14391 (11.76) | 29075 (11.67) | 20.39 | 21.52 | 20.94 |
| Total Blocks | 107655 (100.00) | 107049 (100.00) | 214704 (100.00) | 124799 (100.00) | 124323 (100.00) | 249132 (100.00) | 15.92 | 16.14 | 16.04 |
| Urban Area | 5775 | 5290 | 11065 | 6284 | 5808 | 12091 | 8.81 | 9.79 | 9.27 |
| District | 113430 | 112339 | 225769 | 131083 | 130151 | 261233 | 15.56 | 15.85 | 15.71 |

Figures in parentheses are percentage to respective total.

Source: Census Reports 1991, 2001

Similar information with regard to the scheduled tribe (ST) population in different blocks of the district is presented in Table- 4.4. A cursory glance at the table reveals that like the SC population, the scheduled tribe female population in the district also showed an

increase of about 12.62 per cent over the ten year time span. The corresponding figure for male population was 9.17 per cent. Overall, the scheduled tribe population is noted to have increased by about 10.88 per cent during the period under study. Block-wise comparison of the total scheduled tribe population shows that Darang has the largest ST population, followed by Gopalpur, Balh and Sadar blocks. The total percentage change in the scheduled tribe population reveals a decline in ST population of about 10.86 and 8.25 per cent in Chauntra and Karsog blocks respectively. Although Chachyot and Dharampur block showed a very high proportionate increase in scheduled tribe population, yet given the very low absolute figures, the high changes in population make up does not really change the scenario much. The growth of scheduled tribe population in rural area of the district is high at 10.88 per cent. In the urban areas there has been a decline in their number during the period 1991-2001. Overall, there has been an increase of 10.29 per cent in the total ST population, with this increase for female ST population being 11.99 per cent in 2001, as compared to the position in 1991.

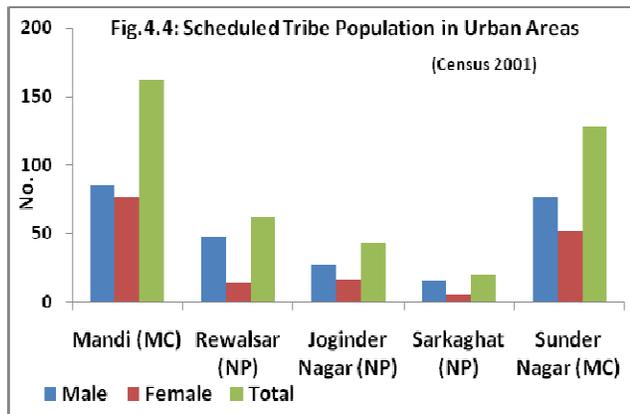
Table 4.4: Block-wise scheduled tribe population in Mandi district.

| Blocks | Census 1991 | | | Census 2001 | | | Per cent Change | | |
|------------------|------------------|------------------|------------------|------------------|------------------|-------------------|-----------------|--------|--------|
| | Male | Female | Total | Male | Female | Total | Male | Female | Total |
| Sadar | 638 (13.78) | 551 (12.18) | 1189 (12.99) | 775 (15.33) | 685 (13.45) | 1460 (14.38) | 21.47 | 24.32 | 22.79 |
| Balh | 663 (14.32) | 655 (14.48) | 1318 (14.40) | 755 (14.93) | 789 (15.49) | 1544 (15.21) | 13.88 | 20.46 | 17.15 |
| Drang | 1368 (29.55) | 1336 (29.54) | 2704 (29.54) | 1516 (29.99) | 1563 (30.68) | 3079 (30.34) | 10.82 | 16.99 | 13.87 |
| Chauntra | 535 (11.55) | 588 (13.00) | 1123 (12.27) | 502 (9.93) | 499 (9.79) | 1001 (9.86) | -6.17 | -15.14 | -10.86 |
| Gopalpur | 744 (16.07) | 771 (17.05) | 1515 (16.55) | 730 (14.44) | 841 (16.51) | 1571 (15.48) | -1.88 | 9.08 | 3.70 |
| Dharampur | 6 (0.13) | 3 (0.07) | 9 (0.10) | 18 (0.36) | 4 (0.08) | 22 (0.22) | 200.00 | 33.33 | 144.44 |
| Chachyot | 30 (0.65) | 16 (0.35) | 46 (0.50) | 79 (1.56) | 62 (1.22) | 141 (1.39) | 163.33 | 287.5 | 206.52 |
| Seraj | 23 (0.50) | 14 (0.31) | 37 (0.40) | 23 (0.45) | 19 (0.37) | 42 (0.41) | 0.00 | 35.71 | 13.51 |
| Sunder Nagar | 395 (8.53) | 393 (8.69) | 788 (8.61) | 454 (8.98) | 416 (8.17) | 900 (8.87) | 14.94 | 5.85 | 14.21 |
| Karsog | 228 (4.92) | 196 (4.33) | 424 (4.63) | 203 (4.01) | 186 (3.65) | 389 (3.83) | -10.96 | -5.10 | -8.25 |
| Total Blocks | 4630 (100.00) | 4523 (100.00) | 9153 (100.00) | 5055 (100.00) | 5094 (100.00) | 10149 (100.00) | 9.17 | 12.62 | 10.88 |
| Total Urban Area | 254 | 171 | 425 | 252 | 163 | 415 | -0.79 | -4.68 | -2.35 |
| District | 4884 | 4694 | 9578 | 5307 | 5257 | 10564 | 8.66 | 11.99 | 10.29 |

Figures in parentheses are percentage to respective total of all blocks.

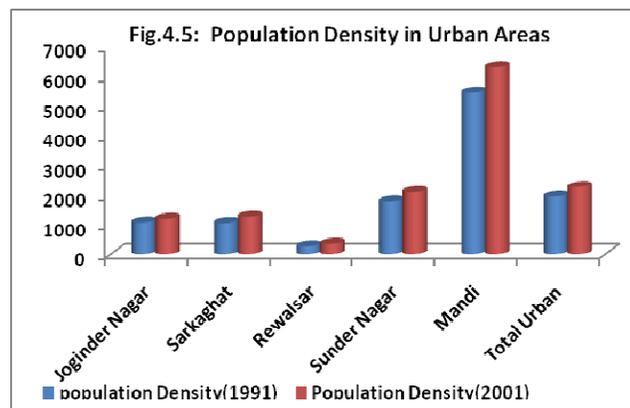
Source: Census Reports 1991, 2001

The overall decadal change in the population of ST has been estimated to be (-)2.35 per cent, again with a high decline (4.68%) in case of female ST population in urban areas. One of the reasons for decline in urban ST female population is perceived to the improvements in the educational facilities and opportunities in small scale cottage industries in the rural areas. The per cent increase in case of Nagar Parisad area of Rewalsar is seen to be very high, but it is mainly because of very low base figure of only one resident in 1991 census (Appendix-III and IV). However, as per the census of 2001, highest number of scheduled tribe families were in Mandi Municipal Committee area, followed by Sunder Nagar Municipal Committee area, Rewalsar, Joginder Nagar and Sarkaghat Nagar Parisads, respectively (Fig.- 4.4).



4.2 Population Density

Land is the basic resource particularly in agrarian economies. Various types of pressures like agricultural, industrial, residential, etc. impact the productivity as well as the availability of this vital resource for different activities. In this regard, it becomes pertinent to analyze the population pressure on land resources of



a given area. Table-4.5 shows the population density (population/ sq. km) as well as changes in population density in different blocks of Mandi district during the period under study. It is evident from the table that population density has increased in the district; with a figure of 197 in 1991 to 228 in 2001. The overall rural population density increased from 184 to 214 during the same period. So far as population density in various blocks is concerned, Balh block ranks highest with the population density of 455, followed by Gopalpur and Chauntra with population density of 387 and 279 respectively in the year 2001. In case of urban areas (Fig.-4.5), Mandi

Municipal Committee area has the highest population density of 6308 persons per sq. km, followed by Sunder Nagar with a density of 2093 and Sarkaghat with 1256 persons/ sq. km (Appendix-V). The overall urban area population density works out to be 2263 persons/ sq. km in the year 2001 against 1943 persons/ sq. km in 1991 (Table-4.5).

Table 4.5: Block-wise area and population density in Mandi district

| Blocks | 1991 | | 2001 | |
|--------------|-----------------------------------|---|-----------------------------------|---|
| | Geographical Area km ² | Pop ⁿ Density/ Km ² | Geographical Area km ² | Pop ⁿ Density/ Km ² |
| Sadar | 600.81 | 159 | 600.81 | 191 |
| Balh | 220.18 | 395 | 220.18 | 455 |
| Drang | 523.76 | 119 | 523.76 | 140 |
| Chauotra | 238.47 | 247 | 238.47 | 279 |
| Gopalpur | 221.12 | 343 | 221.12 | 387 |
| Dharampur | 226.96 | 312 | 226.96 | 297 |
| Chachyot | 358.15 | 144 | 358.15 | 170 |
| Seraj | 496.95 | 125 | 496.95 | 149 |
| S.Nagar | 412.64 | 195 | 412.64 | 225 |
| Karsog | 585.65 | 135 | 585.65 | 159 |
| Total Blocks | 3923.69 | 184 | 3923.69 | 214 |
| Urban Area | 26.89 | 1943 | 26.89 | 2263 |
| District | 3950.58 | 197 | 3950.58 | 228 |

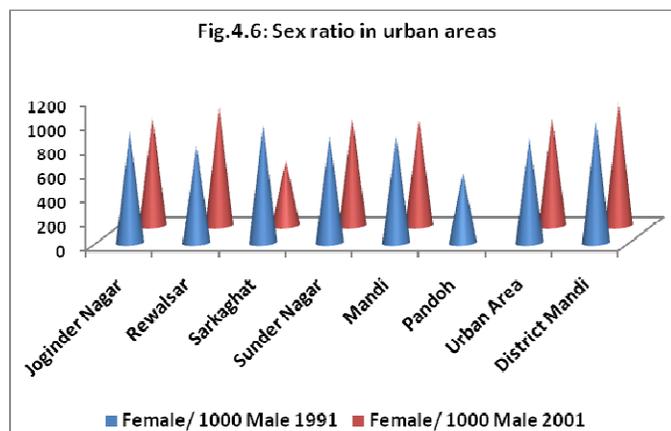
Source: CensusReports 1991, 2001.

4.3 Sex Ratio

One indicator used to assess society's treatment for women is the population sex ratio. The sex ratio in India has seen a downward trend throughout the 20th century; reaching 927 in the year 1997 as against 972 in the year 1901. In 2001, however, the sex ratio improved marginally to reach 933 (by 6%). In Himachal Pradesh, the sex ratio also decreased from 976 in 1991 to 968 in 2001. In district Mandi the sex ratio decreased by one from 1013 in 1991 to 1012 in 2001, indicating a decrease of 0.09 per cent. The sex ratio remained practically unchanged for the rural areas of the district during the decade under reference (Table-4.6). During 2001 the number of females per thousand of males varied from lowest of 933 (Balh block) to highest of 1146 (Chauotra block). With regard to the sex ratio, Chauotra block ranks first and it is followed by Dharampur, Gopalpur and Darang with the figure of 1117, 1083 and 1025, respectively. The



position in respect of the number of females/thousand of males has slightly improved in Sadar, Drang, Chachyot, Sunder Nagar, Karsog and Seraj blocks. However in rest of the blocks sex ratio showed a marginal tilt towards males during a span of ten years.



In urban areas of Mandi district, the sex ratio have registered a marginal increase of 2.88 per cent during 1991-2001 period. Interestingly the number of females per thousand of males remained less than 900 for all the urban areas taken together. Barring the case of Jogindernagar Nagar Parisad, almost all the urban areas experienced a positive growth in sex ratio. In all the urban segments of the district, the number of females were found to be less than the males. A cursory glance of male-female ratio can be had from Fig.-4.6 and Appendix-VI.

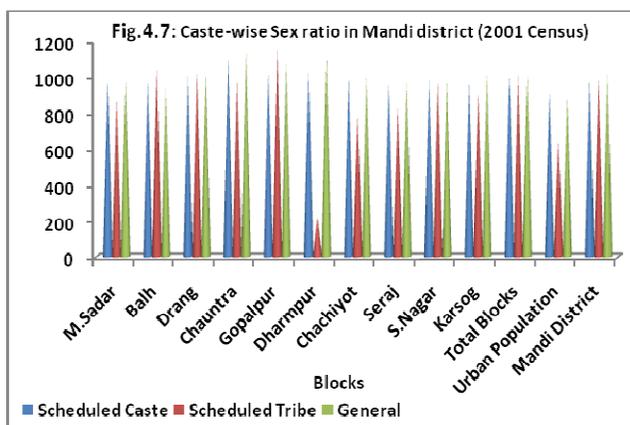
In all the urban segments of the district, the number of females were found to be less than the males. A cursory glance of male-female ratio can be had from Fig.-4.6 and Appendix-VI.

Table 4.6 : Sex ratio in different blocks of Mandi district

| Blocks | Female/ 1000 of Male (1991 Census) | Female/ 1000 of Male (2001 Census) | % Change over 1991 census |
|-----------------------|------------------------------------|------------------------------------|---------------------------|
| Sadar | 972 (7) | 984 (7) | 1.23 |
| Balh | 996 (5) | 933 (10) | -0.03 |
| Drang | 1017 (4) | 1025 (4) | 0.79 |
| Chauntra | 1183 (1) | 1146 (1) | -3.13 |
| Gopalpur | 1087 (3) | 1083 (3) | -0.37 |
| Dharampur | 1174 (2) | 1117 (2) | -4.86 |
| Chachyot | 964 (9) | 995 (6) | 3.22 |
| Seraj | 949 (10) | 970 (9) | 2.21 |
| Sunder Nagar | 968 (8) | 973 (8) | 0.52 |
| Karsog | 975 (6) | 992 (5) | 1.74 |
| Total Blocks | 1022 | 1022 | 0.00 |
| Urban Area | 869 | 894 | 2.88 |
| District Mandi | 1013 | 1012 | -0.09 |

Source: Census Report 1991, 2001: Reproduced from District Statistical Handbook, 2004
 Figures in parentheses are rank among the blocks.

Table-4.7 and Fig.-4.7, present caste distinguished data for sex ratio in different blocks of Mandi district. According to 2001 census, the number of females per thousand of males was reported to be 1012 which is higher than the state level and national level sex ratio of 968, 933 respectively. Sex ratios were worked out for different social groups in Mandi district and the same revealed a relatively lower sex ratio for scheduled caste and tribe as compared to overall sex ratio. In Gopalpur block the sex ratio for scheduled tribes is 1152 and the sex ratio for schedule castes (1027), which is higher



than overall sex ratio of 1087. In Dharampur block the sex ratio for scheduled tribe is much lower (222) than the scheduled caste (1027) and general category population (1117). Overall the sex ratio in case of scheduled tribe is higher (1008) in rural area as compared to urban area where the ratio is quite low at 647. The scheduled caste sex ratio in rural area is marginally higher than the urban area with 996 and 914 females per thousand of males.

Adverse sex ratio can be attributed to a number of factors like (i) strong social preference for sons, (ii) high infant mortality rate and female foeticide, (iii) early marriage of women and death of adolescent mothers who are likely to die from complications during pregnancy.

Table 4.7: Category-wise sex ratio in different blocks of Mandi district as per 2001 Census

| Blocks | Scheduled Caste | Scheduled Tribe | Total Population |
|----------------|-----------------|-----------------|------------------|
| Sadar | 982 | 884 | 984 |
| Balh | 978 | 1045 | 933 |
| Drang | 1002 | 1031 | 1025 |
| Chauntra | 1106 | 994 | 1146 |
| Gopalpur | 1027 | 1152 | 1083 |
| Dharampur | 1027 | 222 | 1117 |
| Chachiyot | 997 | 785 | 995 |
| Sunder Nagar | 965 | 826 | 970 |
| Karsog | 979 | 982 | 992 |
| Seraj | 980 | 916 | 1022 |
| Total Blocks | 996 | 1008 | 1014 |
| Urban Area | 914 | 647 | 894 |
| District Mandi | 992 | 990 | 1012 |

Source: Census Report 2001: Compiled from District Statistical Handbook, 2004

4.4 Women Participation

Table-4.8 and Fig.-4.8 present the extent of women representation in the governing body of Panchayats. As compared to past decade (from 1995 to 2005) in which three elections were held, the women representation in the year 2005 over 1995 has shown an impressive increase of 42.73 per cent. Highest increase was observed in Balh block with 77.78 per cent followed by Chachyot block with 65.43 per cent. All the blocks of the district registered a positive change in the number of elected women representatives during the period under reference. The share of women representation in the year 2005 election varied from 38.26 per cent (Gopalpur) to 50.95 per cent (Chachyot) of total elected persons. The whole analysis indicated a reasonably higher women empowerment in the district as well as in different blocks, with regards to their role in decision making process of village development activities.

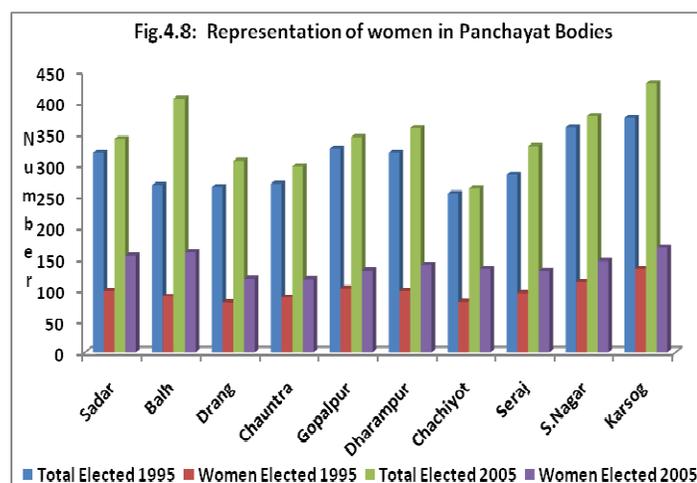


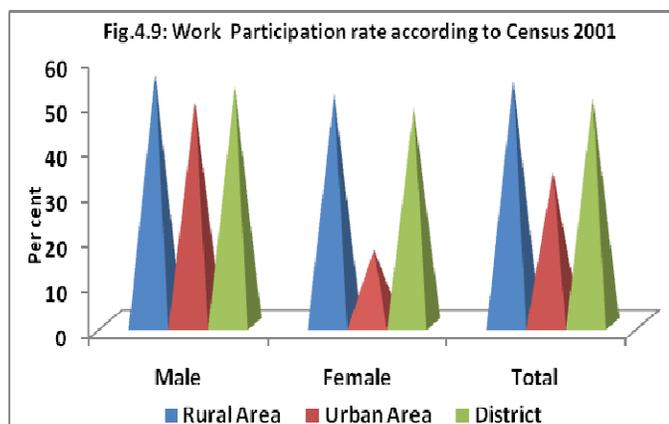
Table 4.8: Representation of women in Panchayat bodies (1995 and 2005)

| Blocks | Total No. of elected persons | | No. and proportion of elected women | | % Change over 1995 |
|---------------------|------------------------------|-------------|-------------------------------------|---------------------|--------------------|
| | 1995 | 2005 | 1995 | 2005 | |
| Sadar | 320 | 342 | 99 (30.94) | 155 (45.32) | 56.56 |
| Balh | 268 | 407 | 90 (33.58) | 160 (39.31) | 77.78 |
| Drang | 265 | 307 | 80 (30.19) | 118 (38.43) | 47.50 |
| Chauntra | 270 | 298 | 88 (32.59) | 117 (39.26) | 32.95 |
| Gopalpur | 327 | 345 | 103 (31.50) | 132 (38.26) | 28.15 |
| Dharampur | 320 | 360 | 99 (30.94) | 141 (39.16) | 42.42 |
| Chachyot | 255 | 263 | 81 (31.76) | 134 (50.95) | 65.43 |
| Seraj | 285 | 331 | 96 (33.68) | 131 (39.57) | 36.46 |
| S. Nagar | 361 | 379 | 113 (31.30) | 147 (38.78) | 30.09 |
| Karsog | 376 | 431 | 134 (35.63) | 168 (38.98) | 25.37 |
| Total blocks | 3047 | 3463 | 983 (32.26) | 1403 (40.51) | 42.73 |

Figures in parentheses are percentage to total elected persons.

4.5 Work Participation

Block-wise work participation rate for the district is presented in Table-4.9. Work participation, as pointed earlier, is the ratio of total workers (main plus marginal) to that of total population. A higher work participation rate would therefore depict the gainful employment of the people in the region. This work participation rate has also been shown in terms of work participation of male and female population, apart from the total population. It is evident from the table that Balh block is lagging behind others, so far as work participation rate is concerned. The block is followed by Gopalpur and Dharampur with overall work participation rate of 48.62 per cent and 49.08 per cent respectively. The highest work participation rate was observed to



be in Sadar block followed by Seraj block and Chachyot block respectively. The work participation rate for male is generally higher, though not distinctly higher in all the blocks except Darang, Chauntra and Dharampur, where female work participation is higher than that of males. At overall level, in rural areas the male workers' work participation rate works out to 55.51 per cent and that of female 51.46 per cent as per the 2001 population census. Work participation rate in urban area remain relatively less as compared to rural area.

Table 4.9: Block-wise work participation rate according to Census 2001.

| Blocks | Work participation rate (Per cent) | | |
|----------------|------------------------------------|--------|-------|
| | Male | Female | Total |
| Sadar | 68.87 | 55.29 | 62.17 |
| Balh | 33.53 | 32.38 | 32.96 |
| Drang | 51.65 | 52.11 | 51.88 |
| Chauntra | 46.84 | 51.41 | 49.28 |
| Gopalpur | 48.85 | 48.40 | 48.62 |
| Dharampur | 45.76 | 52.06 | 49.08 |
| Chachyot | 56.67 | 55.39 | 56.03 |
| Seraj | 58.57 | 56.24 | 57.42 |
| Sunder Nagar | 55.37 | 50.49 | 52.97 |
| Karsog | 58.56 | 53.53 | 56.06 |
| Total Blocks | 55.51 | 51.46 | 54.06 |
| Urban Area | 49.36 | 16.57 | 33.89 |
| District Mandi | 52.64 | 48.19 | 50.40 |

The work participation rate for female is much lower, that is 16.57 per cent only in the urban areas. The overall scenario in the district shows a rate of 50.40 per cent work participation, with the rate for males 52.64 and for female 48.19 per cent (Fig-4.9).

The gender-wise distribution of main and marginal workers is presented in Table-4.10 and 4.11. In case of marginal workers, majority of workers, irrespective of their sex, are cultivators. Proportion of female workers working as marginal cultivators is proportionately higher in all the blocks. At the overall level, the proportion of female cultivators worked out to be as high as 71.85 per cent of the total cultivators. Proportion of females working as agricultural labourers is also higher in the district and this is true for all the blocks except for Chachyot and Seraj blocks where proportion of female agricultural labourers worked out to 29.52 per cent and 42.22 per cent of the total agricultural marginal labourers, respectively. At the district level male marginal workers comprised 31.06 per cent of the total marginal workers. The proportion of female workers in the category of other workers' was relatively lesser as compared to male workers in this category (Table-4.10).

Table 4.10: Block and industrial category wise distribution of marginal workers in Mandi district.

| Blocks | Cultivators | | | Agricultural labourers | | | Household industry workers | | | Other workers | | | Total marginal workers | | |
|--------------|--------------|---------------|---------------|------------------------|-------------|-------------|----------------------------|-------------|-------------|---------------|-------------|--------------|------------------------|---------------|---------------|
| | M | F | T | M | F | T | M | F | T | M | F | T | M | F | T |
| Sadar | 6531 | 13775 | 20306 | 881 | 905 | 1786 | 183 | 196 | 379 | 2118 | 416 | 2534 | 9713 | 15292 | 25005 |
| Balh | 4053 | 10942 | 14995 | 73 | 109 | 182 | 82 | 52 | 134 | 1066 | 171 | 1237 | 5274 | 11274 | 16548 |
| Drang | 5123 | 14738 | 19261 | 121 | 103 | 224 | 28 | 86 | 114 | 439 | 109 | 548 | 5711 | 14436 | 20147 |
| Chauntra | 4651 | 14900 | 19551 | 128 | 299 | 427 | 92 | 82 | 174 | 822 | 259 | 1081 | 5693 | 15540 | 21233 |
| Gopalpur | 5509 | 14038 | 19547 | 308 | 427 | 735 | 169 | 90 | 259 | 893 | 262 | 1155 | 6879 | 14817 | 21696 |
| Dharampur | 4338 | 13650 | 17988 | 189 | 332 | 521 | 136 | 103 | 239 | 950 | 310 | 1260 | 5613 | 14395 | 20008 |
| Chachyot | 3137 | 8110 | 11247 | 117 | 49 | 166 | 20 | 26 | 46 | 333 | 171 | 504 | 3607 | 8356 | 11963 |
| Seraj | 3119 | 4706 | 7825 | 26 | 19 | 45 | 58 | 412 | 470 | 226 | 60 | 286 | 3429 | 5197 | 8626 |
| Sunder Nagar | 5553 | 13357 | 18910 | 273 | 279 | 552 | 130 | 94 | 224 | 979 | 422 | 1401 | 6935 | 14152 | 21087 |
| Karsog | 4411 | 10905 | 15316 | 106 | 263 | 369 | 43 | 109 | 152 | 331 | 268 | 599 | 4891 | 11545 | 16436 |
| Total | 46425 | 118521 | 164946 | 2222 | 2785 | 5007 | 941 | 1250 | 2191 | 8157 | 2448 | 10605 | 57745 | 125004 | 182749 |

Source: Primary Sensus Survey Report 2001.

M= Male; F= Female; T= Total.

Distribution of main workers in terms of gender and vocation again reveals that majority of the male workers are cultivators, followed by the category of other main workers which constitute 32.67 per cent. Only a small number of workers (4139) are engaged in household industry. Again the proportion of main workers working as agricultural labourer is relatively low. Of the total main workers of district about 64.62 per cent were males (Table-4.11). In the main workers category, the proportions of female workers are comparatively lower in relation to males in all the categories of male workers.

Analysis of the data presented in the tables suggests that majority of the workers both main and marginal are cultivators. This avocation is followed by that of “other workers”, household industry workers and that of agricultural labourers. It thus becomes important to strengthen various farm and household industries at the block level in the district so that more and more people can get gainful employment in these sectors.

Table 4.11: Block-wise industrial category of main workers.

| Blocks | Cultivators | | | Agricultural labourers | | | Household industry workers | | | Other workers | | | Total main workers | | |
|--------------|-------------|-------|--------|------------------------|-----|------|----------------------------|-----|------|---------------|------|-------|--------------------|-------|--------|
| | M | F | T | M | F | T | M | F | T | M | F | T | M | F | T |
| Sadar | 13290 | 13822 | 27112 | 327 | 192 | 519 | 507 | 124 | 631 | 16054 | 2044 | 18098 | 30178 | 16182 | 46360 |
| Balh | 4753 | 4127 | 8880 | 30 | 24 | 54 | 327 | 67 | 394 | 6460 | 669 | 7129 | 11570 | 4887 | 16459 |
| Drang | 6274 | 4242 | 10516 | 63 | 27 | 85 | 247 | 25 | 272 | 6475 | 683 | 7158 | 13059 | 4972 | 18031 |
| Chauntra | 1577 | 1828 | 3405 | 16 | 15 | 31 | 284 | 89 | 373 | 6962 | 810 | 7772 | 8839 | 2742 | 11581 |
| Gopalpur | 5739 | 5634 | 11373 | 76 | 47 | 123 | 417 | 52 | 469 | 6875 | 907 | 7782 | 13107 | 6640 | 17747 |
| Dharampur | 2945 | 6200 | 9145 | 32 | 35 | 67 | 343 | 53 | 396 | 8182 | 1071 | 9253 | 11502 | 7359 | 18861 |
| Chachyot | 9319 | 7731 | 17050 | 63 | 26 | 89 | 190 | 49 | 239 | 4080 | 607 | 4697 | 13652 | 8423 | 22075 |
| Seraj | 15700 | 14753 | 30453 | 20 | 14 | 34 | 214 | 53 | 269 | 2637 | 471 | 3103 | 18566 | 15291 | 33857 |
| Sunder Nagar | 9455 | 7881 | 17336 | 58 | 23 | 81 | 491 | 96 | 587 | 9143 | 987 | 10130 | 19147 | 8987 | 28134 |
| Karsog | 15459 | 12128 | 23087 | 262 | 65 | 327 | 447 | 64 | 511 | 5828 | 1023 | 6851 | 22496 | 13280 | 35776 |
| Total | 85011 | 78346 | 163357 | 947 | 463 | 1410 | 3467 | 672 | 4139 | 72691 | 9282 | 81973 | 162116 | 88763 | 250879 |

Source: Primary Census Survey Report 2001 and Village Directory 2001.
M= Male; F= Female; T= Total.

4.6 Employment Generation

The block-wise total employment, in term of man-days generated in Mandi district is presented in Table-4.12. Table shows that a total of 380852 man-days were generated during the year 2005-06 in all the blocks. The highest number of man-days were generated in Sunder Nagar block followed by Karsog block in the year 2005-06. The maximum number of man-days generated was 66180 in Sunder Nagar block and the minimum of 13118 man-days in Dharampur block during 2005-06. In general, the total number of man-days generated were found to be increasing over time from 2002-03 to 2005-06 in all the blocks of Mandi district.

Table 4.12: Block-wise employment generated in Mandi district.

| Blocks | Years | | | |
|---------------------|---------------|---------------|---------------|---------------|
| | 2002-03 | 2003-04 | 2004-05 | 2005-06 |
| Sadar | 46357 | 36945 | 100092 | 34500 |
| Balh | 28890 | 28050 | 23040 | 38240 |
| Drang | 5751 | 21632 | 26572 | 31502 |
| Chauntra | 14639 | 19560 | 27367 | 31877 |
| Gopalpur | 25560 | 62758 | 53914 | 39337 |
| Dharampur | 12258 | 24944 | 112200 | 13118 |
| Chachyot | 22334 | 74374 | 73904 | 34854 |
| Seraj | 14790 | 14906 | 59455 | 28273 |
| Sunder Nagar | 48207 | 96878 | 94702 | 66180 |
| Karsog | 36898 | 86296 | 65232 | 62971 |
| Total Blocks | 255684 | 466343 | 636478 | 380852 |

Source: DRDA, Mandi

4.7 Natural Endowments

The information related to the natural endowments of the developmental blocks of the district was available only for the mines and water resources. Block-wise analysis of other natural resources, like forests, was not possible for want of adequate data that could be analyzed in a block-wise manner.

The number of mines, mostly that of stone and sand, in the different blocks are given in Table-4.13. It shows that all the blocks are having one or the other mine at least in each block. The total number of mines remains the same during the year 2001 to 2005. The stone mines are the predominant followed by sand and slate mines. Highest number of stone mines were found in Sadar block (33) followed by Sunder Nagar (15) and Dharampur (7). Slate mines are mainly located in Seraj block, where it has 11 mines followed by Sadar block with 6 mines. Sand is mainly extracted from 7 mines in Balh block followed by 5 mines each in Chauntra, Dharampur and Karsog.

Table 4.13: Block-wise number of mines in Mandi district.

| Blocks | 2001 | | | 2005 | | |
|--------------|-----------|-----------|-----------|-----------|-----------|-----------|
| | Sand | Slate | Stone | Sand | Slate | Stone |
| Sadar | 0 | 6 | 33 | 0 | 6 | 33 |
| Balh | 7 | 0 | 0 | 7 | 0 | 0 |
| Drang | 0 | 0 | 3 | 0 | 0 | 3 |
| Chauntra | 5 | 0 | 3 | 5 | 0 | 3 |
| Gopalpur | 3 | 0 | 2 | 3 | 0 | 2 |
| Dharampur | 5 | 0 | 7 | 5 | 0 | 7 |
| Chachyot | 2 | 4 | 3 | 2 | 4 | 3 |
| Seraj | 1 | 11 | 0 | 1 | 11 | 0 |
| Sunder Nagar | 3 | 2 | 15 | 3 | 2 | 15 |
| Karsog | 5 | 5 | 6 | 5 | 5 | 6 |
| Total | 31 | 28 | 72 | 31 | 28 | 72 |

Source: Office of Mining and Industrial Officer, Mandi

Block-wise distribution of natural water sources is given in Table-4.14. The different sources of water as given in the table are being used by the people for drinking and irrigation purposes. Hence, they have their own utility in the rural life and dependency of people is also more on these sources. The people in these areas are also taking measures at their own level to conserve and maintain potable water sources in the district. For this purpose they also take benefit of various incentives given by the government under different developmental programmes. In order to cope with the water scarcity, hill peoples make use of every source of water for drinking and irrigation purposes. There exist numerous sources of water in Mandi

district and almost all sources are tapped by the locals to meet the severe water scarcity. Perusal of Table-4.14, shows, that *Bauli, Nalu, Tank, Ponds, Chashma, Wells, Shuah, Maggar, Naun, Handpumps, Tubewells* are the main natural sources of drinking water in the district, their corresponding total number are 4729, 80, 30, 384, 100, 817, 20, 37, 10, 61 and 10 are respectively in the district as a whole. As far as irrigation is concerned, *Nala, Khad, Tubewells* and other sources are the main sources of irrigation which accounted for 260, 21, 10 and 345 in number respectively in the district. The analysis across the blocks shows that Sadar has the maximum number of *Baulis* followed by Dharampur, Karsog, Chachyot, Sunder Nagar, etc. *Nalas* which constitutes important irrigation source were maximum in Chachyot, followed by Seraj, Karsog and Sadar blocks. The number of *Wells* and *Tubewells* together were highest in Balh block, followed by Dharampur and Sunder Nagar blocks. There exist wide variation in their respective number across the blocks and details can be seen from Table-4.14.

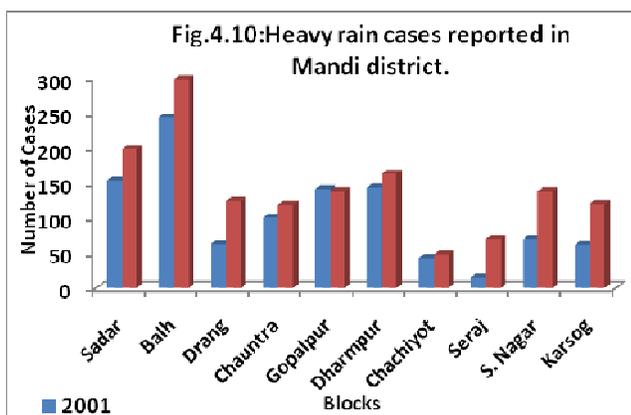
Table 4.14: Block-wise natural endowments (water sources)

| Blocks | Bauli | Nala | Nalu | Khad | Tank | Pond | Chashma | Well | Shuah | Magar | Naun | Hand pump | Tube Well | Others |
|--------------|-------------|------------|-----------|-----------|-----------|------------|------------|------------|-----------|-----------|-----------|-----------|-----------|------------|
| | D/FW | I/SW | D/FW | I/FW | D/FW | D/FW | D/FW | D/FW | D/FW | D/FW/SW | D/FW | D/FW | I+D / FW | I/FW/SW |
| Sadar | 797 | 29 | 15 | -- | 2 | 8 | 4 | 12 | 12 | 10 | 5 | 7 | -- | 35 |
| Balh | 257 | 1 | 3 | -- | 1 | 1 | 1 | 317 | 3 | 2 | 2 | 28 | 9 | 4 |
| Drang | 405 | 11 | 1 | -- | 14 | 2 | 55 | 1 | -- | 14 | 2 | -- | -- | 176 |
| Chauntra | 318 | 11 | 15 | 12 | 3 | 5 | -- | 11 | -- | 6 | -- | -- | -- | -- |
| Gopalpur | 412 | -- | -- | -- | 1 | 5 | -- | 80 | 4 | -- | 1 | -- | -- | -- |
| Dharampur | 844 | -- | -- | -- | -- | 334 | -- | 209 | -- | -- | -- | -- | -- | 56 |
| Chachyot | 451 | 116 | -- | -- | -- | -- | -- | 31 | -- | -- | -- | 26 | -- | 30 |
| Seraj | 253 | 57 | 9 | 6 | -- | 3 | 1 | 10 | -- | 4 | -- | -- | 1 | -- |
| Sunder Nagar | 440 | 3 | 27 | 1 | 2 | 3 | 14 | 138 | -- | -- | -- | -- | -- | 9 |
| Karsog | 552 | 32 | 10 | 2 | 7 | 23 | 22 | 8 | 1 | 1 | -- | -- | -- | 35 |
| Total | 4729 | 260 | 80 | 21 | 30 | 384 | 100 | 817 | 20 | 37 | 10 | 61 | 10 | 345 |

I = Irrigation D = Drinking
 FW = Fresh water SW = Stored water
 Source: DRDA, District Mandi

4.8 Natural Calamities

The population affected by the natural calamities in the district during the year 2001 and 2005 is presented in Table-4.15 and Fig.-4.10. The table reveals that the major natural calamity reported in both the years in all the blocks is heavy rain which causes damage to crops and other properties. In total 1427 cases of this calamity were reported in the district, with highest number of cases (300 cases) in Balh block followed in Sadar (200 cases) and Dharampur (164 cases) in the year 2005. Similar trend was observed in the year 2001. However, the cases of natural calamities were higher in the year 2005 as compared to the year 2001. Lightning was found the next important natural calamity after heavy rainfall. Karsog block was found as the area suffering from almost all kinds of natural calamities. Sporadic cases of lightening were observed in many other blocks also.



Besides, Karsog block was also reported to be worst sufferer from hailing problem causing heavy crop losses in the block.

Table 4.15: Block-wise cases of natural calamities in Mandi district.

(Number of cases)

| Blocks | 2001 | | | | | 2005 | | | | |
|--------------|-------------|-------|-----------|-------------|------------|-------------|-------|-----------|-------------|------------|
| | Earth quake | Flood | Lightning | Cloud burst | Heavy rain | Earth quake | Flood | Lightning | Cloud burst | Heavy rain |
| Sadar | Nil | Nil | Nil | Nil | 155 | Nil | Nil | Nil | Nil | 200 |
| Balh | Nil | Nil | Nil | Nil | 245 | Nil | Nil | Nil | Nil | 300 |
| Drang | Nil | Nil | Nil | Nil | 63 | Nil | Nil | 8 | Nil | 125 |
| Chauntra | Nil | Nil | Nil | Nil | 101 | Nil | Nil | 5 | Nil | 120 |
| Gopalpur | Nil | Nil | 1 | Nil | 142 | 1 | Nil | 2 | Nil | 139 |
| Dharampur | Nil | Nil | Nil | Nil | 144 | 3 | Nil | Nil | Nil | 164 |
| Chachyot | Nil | Nil | 3 | Nil | 43 | Nil | Nil | 7 | Nil | 48 |
| Seraj | Nil | Nil | Nil | Nil | 15 | Nil | Nil | 3 | Nil | 71 |
| Sunder Nagar | Nil | Nil | 1 | Nil | 71 | Nil | Nil | 4 | Nil | 139 |
| Karsog | Nil | 1 | 4 | Nil | 62 | Nil | 21 | 4 | 11 | 121 |
| Total | Nil | 1 | 9 | Nil | 1041 | 4 | 21 | 33 | 11 | 1427 |

Source: Revenue Department/ SDM Office of concerned block of Mandi District.

4.9 Infrastructure Development

Infrastructure development is considered the basis for all the development activities that lead to the better living, higher growth both economic as well as social.

4.9.1 Block-wise number of villages, panchayat, wards etc.

As per 2001 population census, there are 3338 villages in 10 blocks of the district. Karsog block has highest number of villages (599) followed by Seraj (388), Sadar (365), Chachyot (334) and Darang (320). The details related to the number of Panchayats and Wards existing in the district are presented in Table 4.16. There are 473 panchayats and 2877 wards in the district, with a total population of 8,40,362. The Sadar block has the highest number of panchayats (61), followed by Karsog block (60), Balh (51), Sunder Nagar and Dharampur (49 each).

Table 4.16: Block-wise panchayat, wards and villages in Mandi district (2001).

| Blocks | No. of panchayat | No. of wards | No. of villages |
|---------------------|------------------|--------------|-----------------|
| Sadar | 61 | 379 | 365 |
| Balh | 51 | 327 | 193 |
| Drang | 40 | 246 | 320 |
| Chauntra | 40 | 238 | 278 |
| Gopalpur | 41 | 279 | 307 |
| Dharampur | 49 | 287 | 264 |
| Chachyot | 37 | 209 | 334 |
| Seraj | 45 | 265 | 388 |
| Sunder Nagar | 49 | 303 | 290 |
| Karsog | 60 | 344 | 599 |
| Total Blocks | 473 | 2877 | 3338 |

4.9.2 Road network

Road network is a crucial ingredient of any developmental strategy. This is particularly so for the hilly areas which are geographically difficult and connectivity of population is difficult without road and communication network. The importance of road network in the development of hilly regions is well reflected in the often quoted statement of Dr YS Parmar, the first Chief Minister of Himachal Pradesh who termed roads as the lifeline of hill economy. The importance of roads and related transport and communication network is amply reflected in the pace of development of the state today.

Table 4.17: Block-wise status of road connectivity of villages in Mandi district up to 2001.

| Blocks | No. of villages | Villages connected with pucca road | % | Villages connected with semi- pucca road/ katcha road | % | villages yet to be connected | % |
|--------------|-----------------|------------------------------------|-----------|---|-----------|------------------------------|-----------|
| Sadar | 365 | 115 | 32 | 68 | 19 | 182 | 49 |
| Balh | 193 | 100 | 52 | 39 | 20 | 54 | 28 |
| Drang | 320 | 83 | 26 | 58 | 18 | 179 | 56 |
| Chauntra | 278 | 93 | 33 | 52 | 19 | 133 | 48 |
| Gopalpur | 307 | 119 | 39 | 111 | 36 | 77 | 25 |
| Dharampur | 264 | 98 | 37 | 41 | 16 | 125 | 47 |
| Chachyot | 334 | 76 | 23 | 43 | 13 | 215 | 64 |
| Seraj | 388 | 39 | 10 | 48 | 12 | 301 | 78 |
| Sunder Nagar | 290 | 126 | 43 | 9 | 3 | 155 | 54 |
| Karsog | 599 | 132 | 22 | 91 | 15 | 376 | 63 |
| Total | 3338 | 981 | 29 | 560 | 17 | 1797 | 54 |

Source: HP-PWD Department (B&R)/ DRDA, Mandi

Topography of the district is undulating and villages are remotely located and depend heavily on road network for their economic and social development. Out of 3338 villages of the district, nearly 46 per cent are connected with roads. Of these 981 villages (29%) have been linked with pucca roads, while 560 villages (17%) have semi-pucca/katcha roads. It is a matter of concern that still 54 per cent villages are yet to be connected with the main/ link roads. The Seraj block was found having minimum road connectivity, followed by Chachyot, Karsog and Drang. Maximum proportion of total villages of a block has road connectivity in Gopalpur block (75%) has the road network connectivity, followed by Balh (72%), Dharampur (53%), Chauntra (52%), Sadar (51%) (Table-4.17). The table showed wide variation in regard to the road connectivity of villages across the blocks in the district. The analysis suggests that a lot of efforts are still needed to link all villages of the district with the road network.

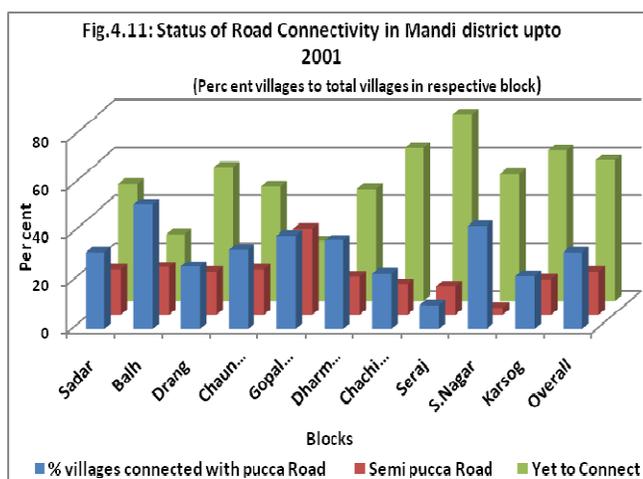


Table 4.18: Block-wise distance of different facilities from block headquarters in Mandi District (2005).

| Blocks | Nearest Facility | | | | |
|--------------|------------------|-----------------|-----------|----------------|---------------------------------------|
| | Nearest town | Railway station | Bus stand | Police station | Nearest Agril. marketing centre (kms) |
| Sadar | 1 | 51 | 1 | 1 | 1 |
| Balh | 15 | 71 | 1 | 0.5 | 8 |
| Drang | 28 | 28 | 0 | 27 | 50 |
| Chauntra | 10 | 0 | 1 | 10 | 90 |
| Gopalpur | -- | 63 | 0 | 0 | 55 |
| Dharampur | 22 | 42 | 0 | 23 | 66 |
| Chachyot | 35 | 95 | 1 | 0 | 30 |
| Seraj | 85 | 137 | 1 | 1 | 65 |
| Sunder Nagar | 0 | 73 | 1 | 1 | 2 |
| Karsog* | 108 | 108 | 2 | 1 | 108 |

* Nearest town Shimla.

Source: Concerned B.D.O. Offices in the district.

Table-4.18 presents the distance of important facilities from the block headquarter. The physical distance, coupled with the lack of road and communication network influences the pace of development. While the shorter distances and hence the frequent visits to the facilities, are expected to promote initiatives, both from the side of local people and development agencies, the longer distances are expected to hinder this process. Shortening of the physical distances is possible through opening up of new facilities or through the network of link roads etc. In general, this does not seem have happened in the district, in respect of the facilities considered, particularly that of Agricultural marketing centre and the railway station.

4.9.3 Infrastructural facilities in primary and middle Schools

Infrastructure is an important indicator of level of development and the potential for future growth in a particular area. The quality of schools largely depends upon the type of infrastructure available. The information with regard to distance between villages and primary schools, the number of primary and middle schools having common toilets, girls toilet, electricity, boundary walls, book bank, playgrounds, drinking water, medical check up facilities, computers, black boards in the schools for the year 2005, has been presented in Table-4.19 and Table-4.20.

Table-4.19 shows that during 2005, at overall level, 49.35 per cent villages were having primary schools within a distance of less than one kilometer, 34.97 per cent were having primary schools within a radius of 1-2 kms, 11.20 per cent within a distance of 2-3 kms, 4.29 per cent within 3-5 kms, and rest of 0.18 per cent villages had primary school facility at a distance of more than 5 kilometers. The inter-block analysis of the number of villages with primary school facilities, revealed a wide variability in the number of villages falling in different distance groups in Drang and Chachyot blocks, more than 44 and 41 per cent of total villages respectively have a primary school within a distance of 1-2 kms. In these two blocks, 15.74 and 27.41 per cent village students have to travel a distance of 2-5 kms for seeking of elementary education. These blocks can be dubbed most backward blocks and require immediate attention of the policy makers to open new schools to narrow down the school distance from the villages. Chauntra block seems to be the most forward block as far the nearness of the primary schools to the villages are concerned. The next in importance is Gopalpur, followed by Sunder Nagar, Balh, Dharampur, Seraj etc. In Sadar and Karsog blocks nearly 46 per cent of total villages were having primary schools within the radius of one kilometer. The fact that the majority of the primary schools are concentrated with in a radius of up to 2 Km. indicates the concern of the planners for providing primary education at the door step of the rural people.

Table 4.19: Number of villages having primary schools in the radius of 1 Km. to 5 Km.

| Blocks | < 1 km | 1- 2 km | 2-3 kms | 3- 5 kms | Above 5 kms | Total |
|-----------------------|---------------------|---------------------|--------------------|-------------------|-----------------|----------------------|
| Sadar | 430(46.19) | 353 (37.92) | 98 (10.52) | 50 (5.37) | Nil | 931 (100.00) |
| Balh | 208 (56.37) | 138 (37.40) | 15 (4.06) | 8 (2.17) | Nil | 369 (100.00) |
| Drang | 150 (39.38) | 171 (44.88) | 42 (11.02) | 18 (4.72) | Nil | 381 (100.00) |
| Chauntra | 221 (81.25) | 45 (16.54) | 6 (2.21) | Nil | Nil | 272 (100.00) |
| Gopalpur | 134 (58.26) | 63 (27.39) | 21 (9.13) | 12 (5.22) | Nil | 230 (100.00) |
| Dharampur | 189 (52.35) | 124 (34.35) | 34 (9.42) | 12 (3.33) | 2 (0.55) | 361 (100.00) |
| Chachyot | 184 (31.14) | 245 (41.45) | 115 (19.46) | 46 (7.78) | 1 (0.17) | 591 (100.00) |
| Seraj | 359 (50.85) | 235 (33.29) | 79 (11.19) | 30 (4.25) | 3 (0.42) | 706 (100.00) |
| Sunder Nagar | 293 (57.11) | 137 (26.71) | 51 (9.94) | 30 (5.85) | 2 (0.39) | 513 (100.00) |
| Karsog | 282 (46.23) | 225 (36.88) | 95 (15.57) | 7 (1.15) | 1 (0.16) | 610 (100.00) |
| Overall Blocks | 2450 (49.35) | 1736 (34.97) | 556 (11.20) | 163 (4.29) | 9 (0.18) | 4964 (100.00) |

Figures in parentheses are percentages to the total.
Source: Deputy Director, Primary Education, Mandi.

Table-4.20 shows that, the facilities of common toilets, separate girls toilets, electricity, boundary walls, book bank, playground, drinking water, medical checkup facilities, ramps for disabled children, computers and black boards were available in 8.37, 2.15, 14.20, 12.98, 39.75, 52.79, 91.62, 62.46, 6.52, 3.32 and 93.65 per cent of primary schools respectively. The corresponding figures in middle schools were estimated at 37.24, 29.61, 54.38, 21.97, 40.97, 61.45, 84.54, 36.50, 4.84, 9.50 and 8.53 per cent of the schools in the district during 2005. The data indicated that, in general, these facilities at the level of middle schools were relatively better than those of primary schools.

Table 4.20: Availability of facilities in primary and middle schools run by department of education in Mandi district.

| Facilities | Primary school | | Middle school | |
|------------------------------------|----------------|----------------|---------------|----------------|
| | No. | Percent | No. | Percent |
| Total schools | 1718 | | 537 | |
| Common toilet | 143 | (8.32) | 200 | (37.24) |
| Girls toilet | 37 | (2.15) | 159 | (29.61) |
| Electricity | 244 | (14.20) | 292 | (54.38) |
| Boundary wall | 223 | (13.98) | 118 | (21.97) |
| Book bank | 683 | (39.75) | 220 | (40.97) |
| Play ground | 907 | (52.79) | 330 | (61.45) |
| Drinking water | 1574 | (91.62) | 454 | (84.54) |
| Medical check up | 1073 | (62.40) | 196 | (36.50) |
| Ramps for disabled children | 112 | (6.52) | 26 | (4.84) |
| Computers | 57 | (3.32) | 51 | (9.50) |
| Black board | 1609 | (93.65) | 458 | (8.53) |

Figure in parentheses are percentage to total schools.

Source: School Listing Report, DISE Data.

4.9.4 Financial institutions

The source of finance is the backbone for the creation of infrastructural facilities and economic growth in industrial as well as in agricultural sector. The strengthening of financial institutions helps in tackling the problems of lack of capital as well as the problems associated with private money lenders etc. Table-4.21 indicates that the financial institutions are having a reasonably good network in all the blocks with highest network of Commercial banks

followed by RRBs and Cooperative banks. The numbers of other financial institutions like LDBs is low and are present only in 5 blocks of the district. The network of commercial banks and the cooperative banks have improved their presence in the district in the last five years i.e. in 2005, compared to the position in the year 2001. The cooperative sector has shown 23.08 per cent increase while Commercial banks increased by 3.85 per cent during this period.

Table 4.21: Block-wise number of financial institutions in Mandi district.

| Blocks | 2001 | | | | 2005 | | | | % change | | | |
|--------------|-----------|----------------------------|-------------------------|----------|-----------|----------------------------|-----------------------------|----------|------------|------------------------|-------------------------|------------|
| | RRBs | Com merc ial bank | Cooper ative bank | LDBs | RRBs | Com merc ial bank | Coop erativ e bank | LDBs | RRBs | Comm ercial bank | Coope rative bank | LDBs |
| Sadar | 6 | 14 | 3 | 1 | 6 | 15 | 4 | 1 | 0.0 | 7.14 | 33.33 | 0.0 |
| Balh | 5 | 4 | 2 | -- | 5 | 4 | 2 | -- | 0.0 | 0.0 | 0.0 | 0.0 |
| Drang | 4 | 4 | 1 | -- | 4 | 4 | 1 | -- | 0.0 | 0.0 | 0.0 | 0.0 |
| Chauntra | 3 | 5 | 3 | 1 | 3 | 5 | 4 | 1 | 0.0 | 0.0 | 33.33 | 0.0 |
| Gopalpur | 7 | 2 | 4 | 1 | 7 | 2 | 5 | 1 | 0.0 | 0.0 | 25.00 | 0.0 |
| Dharampur | 7 | 3 | 4 | -- | 7 | 3 | 5 | -- | 0.0 | 0.0 | 25.00 | 0.0 |
| Chachyot | 2 | 5 | 2 | -- | 2 | 5 | 2 | -- | 0.0 | 0.0 | 0.0 | 0.0 |
| Seraj | 4 | 1 | 2 | 1 | 4 | 1 | 4 | 1 | 0.0 | 0.0 | 100.0 | 0.0 |
| Sunder Nagar | 6 | 9 | 2 | 1 | 6 | 10 | 2 | 1 | 0.0 | 11.11 | 0.0 | 0.0 |
| Karsog | 3 | 5 | 3 | 1 | 3 | 5 | 3 | 1 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total | 47 | 52 | 26 | 6 | 47 | 54 | 32 | 6 | 0.0 | 3.85 | 23.08 | 0.0 |

Source: Lead Bank, Mandi Town.

4.9.5 Fair price shops

Cooperative sector is the most important sector in production and marketing of goods and services with assured quality. In the marketing sector these cooperative are making effective contribution. The position of cooperative shops existing in the blocks of Mandi district is presented in Table-4.22. The table shows that in the year 2005 the number of cooperative society shops operating in different blocks, ranged between 41 to 96 and it has registered a 20.15 per cent growth over the year 2001 with highest in Balh block 80.49 per cent followed by Seraj 43.13 and Sunder Nagar 22.22 per cent. All the blocks have registered positive growth in this regard during the period under reference.

Table 4.22: Block-wise number of fair price shops in Mandi district.

| Blocks | 2001 | 2005 | % change |
|----------------|------|------|----------|
| Sadar | 86 | 96 | 11.63 |
| Balh | 41 | 74 | 80.49 |
| Drang | 43 | 49 | 13.95 |
| Chauntra | 46 | 53 | 15.22 |
| Gopalpur | 40 | 50 | 25.00 |
| Dharampur | 61 | 63 | 3.78 |
| Chachyot | 37 | 41 | 10.81 |
| Seraj | 51 | 73 | 43.13 |
| Sunder Nagar | 54 | 66 | 22.22 |
| Karsog | 67 | 67 | 0.00 |
| Total blocks | 526 | 432 | 20.15 |
| Urban area | 31 | 32 | 3.22 |
| Total district | 557 | 664 | 19.21 |

Source: Department of Civil Supply Mandi

The availability of non-conventional fuel from outside sources to meet out the domestic demands is very important, as it reduces the dependence on forest wealth of the district. The LPG is becoming a popular source for cooking, even in rural areas. In the year 2001, its suppliers had their network in six blocks and one more depot was opened by the agency in Chauntra in the year 2005 taking the total number to 9. Still, three blocks namely Balh, Chachyot and Seraj do not have LPG depot. Nine out of ten blocks of the district have petrol pumps with a total of 31 outlets in 2005 compared to 20 in the year 2001 i.e. an addition of 55 per cent during the span of 4 years period (Table-4.23). It would be in the interest of saving forest resources and improvement in the health of women cooking in the households, if the supply of LPG is made available to larger number of the people in the rural areas.

Table 4.23: Block-wise number of fuel depots in Mandi district.

| Blocks | 2001 | | | 2005 | | |
|--------------|------|----------|-------------|------|----------|-------------|
| | LPG | Kerosene | Petrol pump | LPG | Kerosene | Petrol pump |
| Sadar | 3 | 2 | 8 | 3 | 2 | 12 |
| Balh | -- | -- | 3 | -- | -- | 7 |
| Drang | 1 | 1 | 1 | 1 | 1 | 3 |
| Chauntra | -- | -- | -- | 1 | -- | -- |
| Gopalpur | 1 | 1 | 1 | 1 | 1 | 1 |
| Dharampur | 1 | -- | 1 | 1 | -- | 1 |
| Chachyot | -- | - | 1 | -- | -- | 1 |
| Seraj | -- | - | 1 | -- | -- | 1 |
| Sunder Nagar | 1 | -- | 3 | 1 | -- | 4 |
| Karsog | 1 | -- | 1 | 1 | -- | 1 |
| Total | 8 | 4 | 20 | 9 | 4 | 31 |

Source: Department of Food and Civil Supply, Mandi.

4.9.6 Distribution

Channelization of distribution system is of paramount importance for strengthening the equality, ensuring the availability of food material to economically weaker sections of the society and for sustainable development.

Table 4.24: Block-wise items supplied through PDS in the year 2001 and 2005

(Quantity in MT.)

| Blocks | Year 2001 | | | | | | | | Year 2005 | | | | | | | |
|--------------|-------------|-------------|-------------|-------------|--------------------|--------------|---------------------------|--------------------------|--------------|-------------|--------------|-------------|------------------|--------------|---------------------------|--------------------------|
| | Rice APL | Wheat APL | Wheat Atta | Levy sugar | Kerosene (K. Lts.) | LPG (No.) | Wheat BPL, Antodaya, IRDP | Rice BPL, Antodaya, IRDP | Rice APL | Wheat APL | Wheat Atta | Levy Sugar | Kerosene (K.Lts) | LPG (No.) | Wheat BPL, Antodaya, IRDP | Rice BPL, Antodaya, IRDP |
| Sadar | -- | -- | -- | -- | -- | -- | -- | -- | 5160 | 960 | -- | 1120 | -- | -- | 1383 | 2036 |
| Balh | 2500 | 200 | -- | 1031 | -- | -- | 650 | 1500 | 2600 | 600 | -- | 1040 | -- | -- | 800 | 1460 |
| Drang | -- | 1000 | 300 | 1097 | -- | -- | 341 | 752 | 2337 | 1100 | 2370 | 1099 | -- | -- | 791 | 2266 |
| Chauotra | 1800 | 1000 | 300 | 1097 | -- | -- | 341 | 752 | 2337 | 1100 | 2370 | 1099 | -- | -- | 791 | 2266 |
| Gopalpur | 50 | 10 | 1400 | 854 | 82 | -- | 1200 | 1400 | 1400 | 200 | 1200 | 880 | 82 | -- | 1200 | 1200 |
| Dharampur | 2150 | 100 | 50 | 1050 | 40 | -- | 2000 | 2200 | 2000 | 1100 | 2200 | 1200 | 42 | -- | 1800 | 2000 |
| Chachyot | 580 | 1950 | 2150 | 542 | -- | -- | -- | -- | 1700 | 1500 | 2300 | 544 | -- | -- | -- | -- |
| Seraj | 5 | -- | 1200 | 240 | 72 | -- | 1180 | 386 | 800 | 359 | 620 | 270 | 144 | -- | 800 | 317 |
| Sunder Nagar | -- | -- | -- | -- | -- | 87115 | -- | -- | 2675 | -- | -- | 919 | -- | 93834 | 899 | 1324 |
| Karsog | 5 | -- | 32 | 639 | -- | -- | 392 | 440 | 1437 | -- | 1208 | 717 | -- | -- | 857 | 1296 |
| Total | 7090 | 4260 | 5432 | 6550 | 194 | 87115 | 6104 | 7430 | 22446 | 6919 | 12268 | 8888 | 268 | 93834 | 9321 | 14165 |

Note: Figures are rounded to nearest digit.

Source: Department of Food and Civil Supply Mandi

The government has taken the various measures to ensure the supply of food materials through at fair price shops to the people. The supplies of different items are made through different agencies. Table-4.24 presents information regarding the supply of various items through public distribution system in the year 2001 and 2005. The table reveals that overall, the quantity supplied of different items have registered a positive increase in the year 2005 over 2001 both for below poverty line (BPL) and above poverty line (APL) people. Similar trend is observed in different blocks of the district. Rice, wheat atta and levy sugar are the major items of supply in all the blocks and accounted for highest proportion of total supply among all the items.

The National programme of nutritional support to primary education, popularly called mid-day meal scheme, was launched to promote the elementary education and to check the number of school dropouts, etc. The supply of raw food materials to the schools through public distribution system (PDS) in the year 2005 is summarized in Table-4.25. The table shows that a total of 1852 MT of rice, 352 MT of pulses, 106 Killo Liters of edible oil, 231 MT of onion, 50 MT of salt and 46 MT of spices were supplied to meet out the demand for mid-day meal to 80521 enrolled students in the district. The table also reveals that the quantity supplied in different blocks was directly proportional to the number of students enrolled.

Table 4.25: Block-wise supply to mid-day-meal scheme through PDS in Mandi district (2005).

(Quantity in MT.)

| Blocks | Student enrolment | Rice | Pulse s | Oil (Killo Lts.) | Spices | Onion | Salt |
|--------------|-------------------|-------------|------------|------------------|-----------|------------|-----------|
| Sadar | 8274 | 190 | 50 | 12 | 5 | 25 | 6 |
| Balh | 11122 | 256 | 67 | 17 | 7 | 33 | 8 |
| Drang | 9350 | 215 | 26 | 14 | 6 | 28 | 7 |
| Chauntra | 5770 | 133 | 22 | 6 | 3 | 17 | 4 |
| Gopalpur | 5571 | 128 | 33 | 8 | 3 | 17 | 4 |
| Dharampur | 4700 | 108 | 19 | 7 | 3 | 14 | 3 |
| Chachyot | 6848 | 157 | 41 | 10 | 4 | 20 | 5 |
| Seraj | 9455 | 217 | 36 | 9 | 3 | 18 | 4 |
| Sunder Nagar | 9245 | 213 | 55 | 14 | 5 | 27 | 7 |
| Karsog | 10186 | 234 | 4 | 8 | 6 | 30 | 0.4 |
| Total | 80521 | 1852 | 352 | 106 | 46 | 231 | 50 |

Note: Figures are rounded to nearest digit.

Source: Department of Civil Supply, Mandi

Supply made through Integrated Child Development Scheme (ICDS) at two points of time indicated an increase in the supply of most of the items supplied during the year 2005 over the year 2001, except rice and milk, the absolute quantities of these items has registered decrease in supply (Table-4.26). The item-wise supply in different blocks has shown wide variation in quantity supplied. The major items supplied to different blocks were rice followed by gram and moong. The Karsog block, among all the blocks had the maximum quantity of rice, gram and moong supplied through ICDS, followed by Sadar, Gopalpur and Drang blocks.

Table 4.26: Block-wise supply through integrated child development scheme (ICDS)

(Quantity in MT.)

| Blocks | 2001 | | | | | | | 2005 | | | | | | |
|-----------------|------------|-----------|------------|---------------------|-----------|------------------|-----------|------------|-----------|------------|---------------|-----------|-------------------------|-----------|
| | Rice | Mo ong | Gram | Milk (Killo.ltr) | Sug ar | Ghee (K. ltr) | Salt | Rice | Mo ong | Gram | Milk (ltr) | Sug ar | Ghee (Killo. ltr) | Salt |
| Sadar | 64 | 7 | 38 | 27 | 6 | 6 | 154 | 67 | 8 | 43 | 25 | 3 | 4 | 1 |
| Balh | 35 | 4 | 22 | 19 | 3 | 6 | 0.6 | 35 | 6 | 22 | 19 | 3 | 8 | 5 |
| Drang | 51 | 6 | 23 | 27 | 6 | 6 | 1 | 45 | 7 | 26 | 32 | 5 | 6 | 0.7 |
| Chauntra | 32 | 4 | 11 | 22 | 2 | 3 | 0.3 | 30 | 7 | 18 | 13 | 3 | 4 | 0.3 |
| Gopalpur | 52 | 7 | 23 | 26 | 6 | 5 | 1 | 45 | 8 | 28 | 30 | 4 | 6 | 1 |
| Dharampur | 29 | 4 | 13 | 12 | 3 | 3 | 0.7 | 34 | 6 | 17 | 12 | 2 | 3 | 1 |
| Chachyot | 55 | 6 | 35 | 20 | 4 | 4 | 1 | 36 | 8 | 29 | 14 | 4 | 4 | 1 |
| Seraj | 43 | 6 | 17 | 16 | 6 | 3 | 0.9 | 35 | 6 | 30 | 22 | 4 | 7 | 1 |
| Sunder Nagar | 45 | 5 | 32 | 18 | 3 | 5 | 1 | 54 | 9 | 38 | 20. | 7 | 7 | 2 |
| Karsog | 85 | 11 | 34 | 51 | 8 | 8 | 1 | 68 | 10 | 49 | 31 | 5 | 11 | 2 |
| Total | 491 | 61 | 249 | 240 | 47 | 49 | 10 | 448 | 75 | 301 | 220 | 42 | 61 | 11 |

Note: Figures are rounded to nearest digit.

Source: Department of Civil Supply, Mandi

Similarly, the other schemes running in the district include Swayam Gramin Rojgar Yojna (SGRY) through which wheat and rice is distributed to the people. The data under this scheme was available from 2003 to 2005 and is presented in Table-4.27. Under the scheme only two items were supplied and had registered an increase in supply of both the items in 2005 over 2003. The supply of rice decreased in the year 2004 as compared to 2003. The block-wise quantity supplied of both the items has shown wide variation. The supply of rice was higher than that of wheat in all the blocks.

Table 4.27: Block-wise items supplied through swayam gram in rojgar yojana (SGRY) in Mandi district.

(Quantity in MT.)

| Name of Block | 2003 | | 2004 | | 2005 | |
|---------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | Wheat | Rice | Wheat | Rice | Wheat | Rice |
| Sadar | 177 | 278 | 198 | 228 | 229 | 346 |
| Balh | 188 | 281 | 210 | 243 | 253 | 285 |
| Drang | 122 | 179 | 167 | 256 | 136 | 157 |
| Chauntra | 133 | 206 | 148 | 171 | 171 | 259 |
| Gopalpur | 136 | 207 | 157 | 181 | 190 | 289 |
| Dharampur | 162 | 242 | 181 | 209 | 203 | 307 |
| Chachyot | 140 | 213 | 148 | 171 | 168 | 256 |
| Seraj | 144 | 219 | 161 | 186 | 173 | 262 |
| Sunder Nagar | 166 | 241 | 186 | 214 | 223 | 339 |
| Karsog | 192 | 287 | 214 | 247 | 234 | 352 |
| Total | 1559 | 2354 | 1772 | 2108 | 1980 | 2952 |

Note: Figures are rounded to nearest.

Source: Department of Civil Supply Mandi

4.10 Self-help groups

The establishment and promotion of self-help groups (SGHs) has their impact on the leadership development and employment generation for achieving higher standard of living. The data related to creation of self-help groups is presented in Table-4.28. The table shows that over the year 2001, the establishment of new self-help groups registered a positive growth in the year 2005 in all the blocks of the district. This is true for the number of male and female representatives in the SGHs. The number of self-help groups registered a growth of 140 per cent in 2005 over the year 2001. The increase in male and female participation in SGHs, was estimated at about 156 and 124 per cent respectively. The highest growth in creation of self-help groups was observed in case of Seraj block with 500 per cent followed by Karsog block with 280 per cent. Except Sadar and Chauntra block the growth in

female participation was more than 100 per cent. Similarly, in case of male participation except Gopalpur block it was more than 100 per cent, reflecting that the popularity of SHGs in the area.

Table 4.28: Block-wise detail of self-help groups (SHGs) in Mandi district.

| Blocks | 2001 | | | 2005 | | | % change | | | | | |
|--------------|-------------|------------------------|-------------|-------------|-------------|------------------------|-------------|-------------|--------------|------------------------|--------------|---------------|
| | No. of SHGs | No. of representatives | | | No. of SHGs | No. of representatives | | | No. of SHGs | No. of representatives | | |
| | | Male | Female | Total | | Male | Female | Total | | Male | Female | Total |
| Sadar | 47 | 86 | 437 | 523 | 86 | 253 | 716 | 969 | 82.9 | 194.18 | 63.84 | 85.27 |
| Balh | 42 | 35 | 387 | 422 | 89 | 129 | 828 | 957 | 111.9 | 168.50 | 113.95 | 126.77 |
| Drang | 27 | 106 | 193 | 299 | 68 | 240 | 546 | 786 | 151.8 | 126.41 | 182.90 | 162.87 |
| Chauntra | 33 | 94 | 244 | 338 | 64 | 206 | 450 | 656 | 93.9 | 119.14 | 84.42 | 94.08 |
| Gopalpur | 34 | 334 | 59 | 393 | 63 | 582 | 185 | 767 | 85.3 | 74.25 | 213.55 | 95.16 |
| Dharampur | 28 | 59 | 256 | 315 | 72 | 127 | 623 | 750 | 157.1 | 115.25 | 143.35 | 158.09 |
| Chachyot | 27 | 93 | 184 | 277 | 66 | 326 | 369 | 695 | 144.4 | 250.53 | 100.54 | 150.90 |
| Seraj | 9 | NA | NA | 92 | 54 | NA | NA | 483 | 500.0 | -- | -- | 425.00 |
| Sunder Nagar | 25 | 12 | 264 | 276 | 71 | 116 | 676 | 792 | 184.0 | 866.66 | 156.06 | 186.95 |
| Karsog | 15 | 104 | 69 | 173 | 57 | 386 | 298 | 684 | 280.0 | 271.15 | 330.88 | 295.37 |
| Total | 287 | 923 | 2093 | 3108 | 690 | 2365 | 4691 | 7539 | 140.4 | 156.2 | 124.1 | 142.56 |

Source: DRDA, Mandi

Education

The importance of education can hardly be overstressed as the freedom from ignorance is as important as freedom from diseases and fear. Education, health care, clean water availability, sanitation and environment, collectively termed as social infrastructure, and are considered important for the development. Education increases people's awareness of opportunities for advancement and imparts the ability to seize them; literacy is the first step for empowerment. The benefits of investing in basic education for enhancing human capabilities, social development, economic growth, greater efficiency and better functioning of democratic institutions are well established. In order to achieve these objectives, state intervention becomes all the more important to reform and restructure the education system. It is in this regard that the analysis of educational facilities and student enrolment in the schools, particularly in rural areas, becomes important. This chapter presents the block-wise status of the district in respect of educational development scenario of the district.

5.1 Number of Schools

Our development experience very clearly suggests the importance of and the role played by education in socio-economic upliftment of the people. Historically, Mandi district of the state, fortunately, has been an educational centre of the state. However, in the changing times, the emphasis on the type and pattern of education has changed a lot. As a result different new fields have emerged in this sphere.

There has been a spectacular increase in elementary education in the post-independence period in Mandi district of the State. The brief account of block-wise total number of schools (government, non-government, government aided, & others private) is given in Table-5.1 and Fig.-5.1 for the year 2005.

It can be seen from the table, that in 2005, the district had a total of 2471 schools. Out of these 1926 schools were primary, 672 running up to middle classes and 307 schools were imparting education up to high/ senior secondary level. Balh block was having the highest number of schools (319), followed by Karsog (291), Drang (273), Dharampur and Sunder Nagar each having 259 schools. The number of upper primary schools were relatively more in Balh, Dharampur, Sadar, Gopalpur and Sunder Nagar. There do not exist any discernable pattern in the number of primary, middle and high/ senior secondary schools in different blocks of the district.

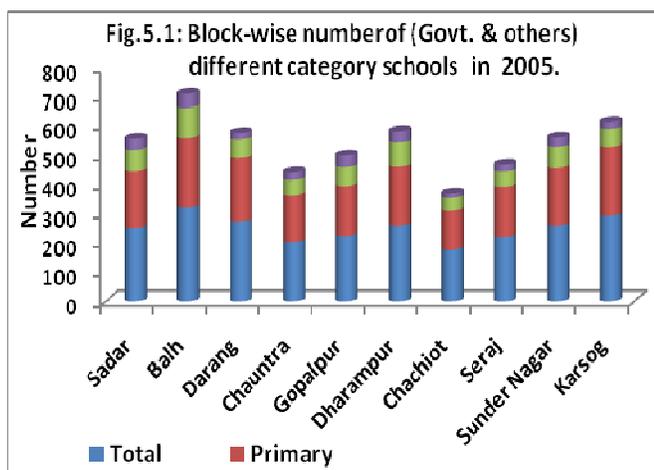


Table 5.1: Block-wise total (government run & others) number of different category schools in Mandi district in 2005.

| Blocks | Total schools (No.) | Number of schools with | | |
|---------------------|---------------------|------------------------|----------------|--------------------------------|
| | | Primary classes | Middle classes | High/ Senior Secondary classes |
| Sadar | 251 | 193 | 76 | 35 |
| Balh* | 319 | 238 | 106 | 48 |
| Darang | 273 | 218 | 62 | 22 |
| Chauntra | 201 | 162 | 51 | 27 |
| Gopalpur | 223 | 172 | 64 | 42 |
| Dharampur | 259 | 201 | 83 | 38 |
| Chachyot | 175 | 134 | 45 | 15 |
| Seraj | 220 | 173 | 51 | 24 |
| Sunder Nagar | 259 | 197 | 74 | 30 |
| Karsog | 291 | 238 | 60 | 26 |
| Total blocks | 2471 | 1926 | 672 | 307 |

* It include Balh & Saigaloo Education Block.

Source: DISE School Listing Report, Directorate of Elementary Education, Shimla.

Government of Himachal Pradesh has made major contributions in creating the educational infrastructural facilities as a result of which the elementary education system has expanded to the largest extent. Of the total number of primary schools in 2005, the government run schools comprised of more than 89 per cent. The block-wise number of primary schools under the Department of Education is presented in Table-5.2 and

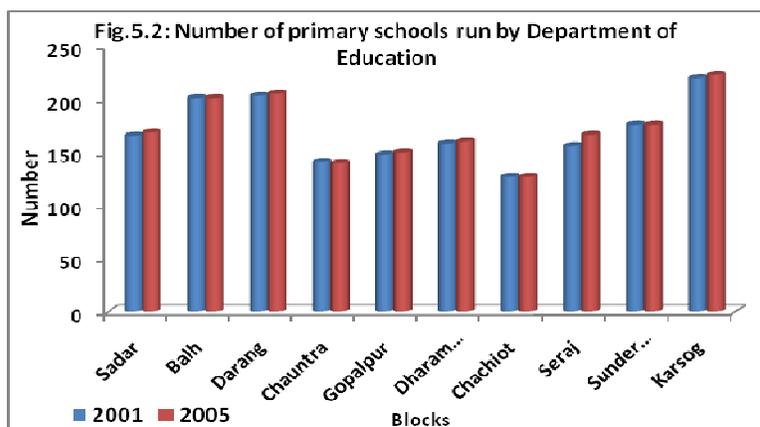


Fig.-5.2. The total number of government run primary schools have increased from 1696 in 2001 to 1718 in 2005 indicating an increase of 1.3 per cent in five years. The maximum increase in the number of primary schools was noted in Seraj block (7.05%) followed by Sadar (1.81%), Karsog (1.36% Gopalpur (1.35% Dharampur (1.26%).

Table 5.2: Block-wise number of primary schools run by department of education.

| Blocks | Year | | % change 2001 |
|--------------|-------------|-------------|---------------|
| | 2001 | 2005 | |
| Sadar | 166 | 169 | 1.81 |
| Balh* | 201 | 201 | 0.00 |
| Darang | 203 | 205 | 0.98 |
| Chauntra | 141 | 140 | (-)0.71 |
| Gopalpur | 148 | 150 | 1.35 |
| Dharampur | 158 | 160 | 1.26 |
| Chachytot | 127 | 127 | 0.00 |
| Seraj | 156 | 167 | 7.05 |
| Sunder Nagar | 176 | 176 | 0.00 |
| Karsog | 220 | 223 | 1.36 |
| Total | 1696 | 1718 | 1.30 |

* It include Balh & Saigaloo Education Block.

Source: Block Elementary Education Office of different Education Blocks.

The breakup of the number of institutions of higher learning in the district is given in Table-5.3. The table shows that the number of colleges have increased from 14 in 2001 to 18 in 2005 in the district. The maximum number of colleges are located in Sunder Nagar block, followed by Sadar & Balh blocks. The table indicated wide regional disparities in the number of colleges across various blocks and addressing this would certainly help in providing opportunities for higher education to the locationally disadvantaged areas. .

Table 5.3: Block-wise number of colleges in Mandi district in the year 2001 and 2005.

| blocks | Art | Science | Art & Science | Dental | ITI | Poly - Tech | B.Ed | JBT | Others | Total |
|-------------------------|-----|---------|---------------|--------|-----|-------------|------|-----|---------------|-------|
| Sadar 2001 | -- | -- | 1 | -- | 1 | -- | -- | 1 | -- | 3 |
| 2005 | -- | -- | 1 | -- | 1 | -- | 2 | 1 | -- | 5 |
| Balh 2001 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | 1 |
| 2005 | 1 | -- | -- | -- | -- | -- | 2 | -- | -- | 3 |
| Drang 2001 | -- | -- | 1 | -- | -- | -- | -- | -- | -- | 1 |
| 2005 | -- | -- | 1 | -- | -- | -- | -- | -- | -- | 1 |
| Chautra 2001 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 2005 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Gopalpur 2001 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | 1 |
| 2005 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | 1 |
| Dharampur 2001 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 2005 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Chachyot 2001 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 2005 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Seraj 2001 | -- | -- | 1 | -- | -- | -- | -- | -- | -- | 1 |
| 2005 | -- | -- | 1 | -- | -- | -- | -- | -- | -- | 1 |
| Sunder Nagar 2001 | -- | -- | 1 | 1 | 1 | 1 | 1 | -- | 1 (Sans-krit) | 6 |
| 2005 | -- | -- | 1 | 1 | 1 | 1 | 1 | -- | 1 | 6 |
| Karsog 2001 | -- | -- | 1 | -- | -- | -- | -- | -- | -- | 1 |
| 2005 | -- | -- | 1 | -- | -- | -- | -- | -- | -- | 1 |
| Total 2001 | 2 | -- | 5 | 1 | 2 | 1 | 1 | 1 | 1 | 14 |
| 2005 | 2 | -- | 5 | 1 | 2 | 1 | 5 | 1 | 1 | 18 |

Source: District Statistical Office, Mandi.

5.2 Enrolment

The spread of education is measured by a combination of factors like adult literacy and the combined enrolment rate while computing human development index. As far as combined enrolment is concerned, this indicator was limited to the primary and secondary level. Tertiary enrolment has not been accounted for due to non availability of full enrolment records for the students. The information on lack of student enrolment and high drop-out rate reflect on the quality of the schools. The block-wise total enrolment of the students, including the students other than the government schools, have been presented in Table-5.4. The table shows that, of the total enrolment of 216436 students in the district, the number of primary level students accounted for 45.3 per cent, middle level students comprised of 29.15 per cent and the high/ senior secondary school students constituted 25.55 per cent. The enrolment number was found highest in Balh block, followed closely by Sunder Nagar, Karsog, Sadar and Darng blocks. The trend of high enrolment in primary segment, followed by middle segment and least in high/ senior secondary schools was noted in almost all the blocks. The enrolment rate was found to have direct relationship with number of schools in various blocks under the study, suggesting thereby the possibilities of improvement in this regard by adding more schools..

Table 5.4: Block-wise total (govt. run and private & other schools) enrolment in primary, middle and high/ senior secondary schools in Mandi district in 2005.

| Blocks | Primary | Middle | High/ Senior secondary | Combined enrolment |
|-----------------------|--------------|--------------|------------------------|--------------------|
| Sadar | 10780 | 6653 | 8166 | 25599 |
| Balh | 14219 | 9348 | 4988 | 28555 |
| Darang | 10331 | 6370 | 5733 | 22434 |
| Chauntra | 6913 | 4546 | 4004 | 15463 |
| Gopalpur | 7753 | 5501 | 6125 | 19379 |
| Dharampur | 7487 | 4988 | 4601 | 17076 |
| Chachyot | 7535 | 4600 | 2994 | 15129 |
| Seraj | 10057 | 5803 | 5087 | 20947 |
| Sunder Nagar | 11428 | 7849 | 6737 | 26014 |
| Karsog | 11518 | 7433 | 6889 | 25840 |
| Total District | 98021 | 63091 | 55324 | 216436 |

Source: DISE School Listing Report, Directorate of Elementary Education, Shimla/
Block Elementary Education Officer of respective Education Blocks/ Deputy Director Education, Mandi.

The block-wise per school enrolment in Mandi district for the year 2005 is summarized in Table-5.5 and Fig.-5.3. The table shows that overall level the enrolment per school comes out to be 88. The number of students enrolled per school was found increasing with increase in the level of education. Among various blocks the combined enrolment per school varied from 66 in Dharampur to 102 in Sadar. In case of primary schools, the range was between 37 to 60. In middle schools the number ranged from 60 to 124 while in case of high and senior secondary schools the per school number varied from 104 to 265 in various blocks under study.

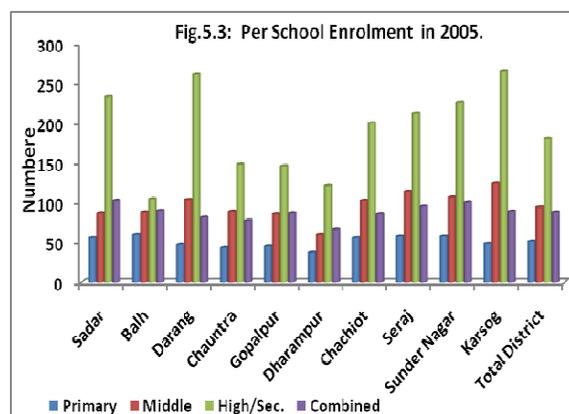


Table 5.5: Block-wise per school enrolment in Mandi district in 2005.

| Blocks | Enrolment in | | | |
|----------------|--------------|--------|------------------------|-------|
| | Primary | Middle | High/ Senior secondary | Total |
| Sadar | 56 | 87 | 233 | 102 |
| Balh | 60 | 88 | 104 | 90 |
| Darang | 47 | 103 | 261 | 82 |
| Chauntra | 43 | 89 | 148 | 77 |
| Gopalpur | 45 | 86 | 146 | 87 |
| Dharampur | 37 | 60 | 121 | 66 |
| Chachyot | 56 | 102 | 200 | 86 |
| Seraj | 58 | 114 | 212 | 95 |
| Sunder Nagar | 58 | 106 | 225 | 100 |
| Karsog | 48 | 124 | 265 | 89 |
| Total District | 51 | 94 | 180 | 88 |

Due to paucity of block-wise time series data on enrolment record of high/ senior secondary students, it was not possible to work out the growth in the enrolment in this sector for the district. However, enrolment record for combined and primary section was available for two points of time i.e. 2001 and 2005. The block-wise growth in the combined enrolment for the district is given in Table-5.6. It is interesting to note from the table that at district level, there has been an impressive growth of 6.03 per cent in 2005 over the base year 2001 in the enrolment. The analysis across blocks revealed maximum growth in combined enrolment in

Karsog block (11.74%) followed by Balh (11.16%), Sadar (10.74%), Dharampur (10.58%), Sunder Nagar (9.80%), Seraj (9.61%). The Gopalpur and Chachyot blocks registered negative growth in enrolment during this period.

It is concluded from the table that barring the case of two blocks, the enrolment position at overall level have improved impressively in the district, which is quite encouraging. The expansion in the enrolment up to senior secondary level may be due to matching population growth in this age group and other socio-economic and psychological factors.

Table 5.6: Block-wise combined enrolment (government run and other schools) in Mandi district.

| Blocks | Year | | % change over 2001 |
|-----------------------|---------------|---------------|--------------------|
| | 2001 | 2005 | |
| Sadar | 23116 | 25599 | 10.74 |
| Balh | 25688 | 28555 | 11.16 |
| Darang | 21164 | 22434 | 6.00 |
| Chauntra | 15072 | 15463 | 2.59 |
| Gopalpur | 20449 | 19379 | (-)5.23 |
| Dharampur | 15442 | 17076 | 10.58 |
| Chachyot | 15560 | 15129 | (-)2.77 |
| Seraj | 19111 | 20947 | 9.61 |
| Sunder Nagar | 23691 | 26014 | 9.80 |
| Karsog | 23125 | 25840 | 11.74 |
| Total District | 202418 | 216436 | 6.03 |

Source: Education Department, Mandi.

Due to availability of block-wise data only for primary section enrolment in government managed schools, the growth analysis was attempted for this section for the period 2001-05. The results are presented in Table-5.7. The important feature of the table is that, the enrolment number in the district has shrunk by 14.87 per cent in the terminal year over the base year. This is true for both male and female students in all the blocks of the district. The decline in the enrolment was more in case of males (16.16%) than the female students (13.52%). Inter-block growth analysis indicates almost similar trends, both in case of males as well as females. The falling enrolment in the government primary schools in the district may be attributed to the emergence of private educational institutions that have a potential to impact on the future strength and development of public educational system. Government has started the process of registering private institutions which is changing the enrolment patterns in public institutions.

The reality is that many parents prefer to move their wards to private schools, and this is occurring across the socio-economic spectrum. The trend suggests a positive development of public- private contribution to the field of education. However, for the sake of parity in quality of education it is important that governmental schools further improve their facilities. Also, the number of schools, particularly at primary and middle level would have to increase further to encourage parents to send their children to schools in their vicinity. The hilly terrain and lack of proper link roads often discourage parents to send their small children to distant schools.

Table 5.7: Block-wise enrolment of students in government managed primary schools in Mandi district.

| Blocks | Enrolment | | | | | |
|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | 2001 | | | 2005 | | |
| | Male | Female | Total | Male | Female | Total |
| Sadar | 4765 | 4498 | 9263 | 4210 | 4239 | 8449 |
| Balh | 7098 | 6943 | 14041 | 5721 | 5894 | 11615 |
| Darang | 5396 | 5277 | 10673 | 4641 | 4548 | 9189 |
| Chauntra | 3353 | 3432 | 6785 | 2651 | 2671 | 5322 |
| Gopalpur | 4158 | 4036 | 8194 | 3034 | 2811 | 5915 |
| Dharampur | 2813 | 2942 | 5755 | 2130 | 2303 | 4433 |
| Chachyot | 4097 | 3544 | 7641 | 3457 | 3383 | 6840 |
| Seraj | 4813 | 4933 | 9746 | 4636 | 4682 | 9318 |
| Sunder Nagar | 5813 | 5515 | 11328 | 4521 | 4669 | 9190 |
| Karsog | 5813 | 5636 | 11449 | 5340 | 5164 | 10504 |
| Total | 48119 | 46756 | 94875 | 40341 | 40434 | 80775 |

Source: Block Primary Education Officer of respective blocks of Mandi district.

The year-wise enrolment of scheduled caste/ scheduled tribe students was also analyzed and the same is presented in Table-5.8. The table shows almost increasing trend in the enrolment of scheduled caste students between 1996-97 to 2004-05 period. The range varied from 28.85 per cent of total enrolment in the district in 1996-97 to 32.97 per cent in 2003-04. At overall level, the percentage of scheduled tribe students in total enrolment ranged between 1.31 per cent in 2000-01 and 1.50 per cent in 2003-04. One of the important features of the table is that in almost all the study years, the share of primary section students in total

enrolment comes out to be highest followed by middle, high and senior secondary enrolments. In case of scheduled caste category a rising trend was observed in its enrolment over the years, for all the levels of education. This trend is indicative of increasing awareness among the socially backward classes towards attaining higher level of education. The scheduled tribe category exhibited a fluctuating trend in their enrolment during this period.

Table 5.8: Year-wise enrolment of scheduled caste and scheduled tribe students in Mandi district.

| Year | Primary | | Middle | | High | | Senior Secondary | | Combined | |
|---------|------------------|----------------|------------------|---------------|-----------------|---------------|------------------|---------------|------------------|----------------|
| | SC | ST | SC | ST | SC | ST | SC | ST | SC | ST |
| 1996-97 | 33503 (33.02) | 1496 (1.48) | 14396 (26.55) | 770 (1.42) | 5332 (21.94) | 338 (1.39) | 2190 (17.87) | 120 (0.98) | 55421 (28.85) | 2724 (1.42) |
| 2000-01 | 34294 (35.59) | 1390 (1.49) | 16401 (28.91) | 755 (1.30) | 7122 (23.36) | 332 (1.09) | 3111 (17.73) | 178 (1.01) | 60928 (30.01) | 2655 (1.31) |
| 2001-02 | 34851 (36.13) | 1542 (1.60) | 16724 (28.74) | 766 (1.32) | 7862 (24.54) | 397 (1.24) | 3348 (18.62) | 184 (1.02) | 62785 (30.68) | 2889 (1.41) |
| 2002-03 | 31338 (34.35) | 1373 (1.54) | 17715 (29.73) | 775 (1.30) | 7548 (25.10) | 330 (1.10) | 3520 (18.44) | 384 (2.01) | 60121 (30.06) | 2862 (1.43) |
| 2003-04 | 32818 (41.49) | 1260 (1.59) | 18083 (30.30) | 883 (1.48) | 7795 (25.53) | 406 (1.33) | 3765 (18.71) | 285 (1.42) | 62461 (32.97) | 2834 (1.50) |
| 2004-05 | 31333 (37.90) | 1299 (1.57) | 17758 (31.50) | 755 (1.34) | 8493 (25.54) | 396 (1.19) | 4226 (19.92) | 311 (1.46) | 61810 (31.94) | 2761 (1.43) |

Figures in parentheses are per cent to total enrolment in the year.

Source: Statistical Abstract of Mandi district, 2006.

5.3 Pupil-Teacher Ratio

Teachers are perhaps the most important resource in a school. There is a little doubt that the schooling system in Himachal Pradesh needs more teachers. The number and quality of teachers have direct bearing on the educational output. The shortage of teachers is reflected in pupil-teacher ratio. The category wise breakup and number of teachers in Mandi district are given in Appendix-VII to XI. The year-wise number of teachers, and pupil - teacher ratio for the district in different school segments have been presented in Table-5.9. In absolute terms, the number of primary school teachers have shown a declining trend from 1996-97 to 2002-03, then in 2003-04, the number rose to 4989 and further the number nose-dived to 3972 in

2004-05. In middle segment, number of teachers rose from 796 (1996-97) to 1260 in 2005-06, indicating a steady growth overtime. Similarly, in senior secondary section, a gradual rising trend was observed during 1996-97 to 2005-06 period. In high school, the number of teachers has fallen steadily overtime from 1435 in 1996-97 to 1108 in 2005-06.

The shortage / surplus teacher is reflected in the rising/ falling pupil - teacher ratios (PTR). The perusal of the table shows that, on an average, there were 22 pupils per teacher in primary schools in 1996-97, this ratio went upto 23 in 2000-01 and 2001-02, then steadily declined to 15 in 2003-04 and ultimately reached at 19 in 2005-06. The fall in the expenditure on primary education may be attributed as one of the reasons for this to happen. In case of middle schools the Pupil - Teacher Ratio has shown declining trend overtime, which is quite obvious for reasons of increase in the number of teachers. The interesting thing to note here is that, despite increasing number of teachers recruited in this section overtime, the PTR remains the highest among all the levels of schools. In contrast to this, PTR in high school level has shown a tremendous increase over time from 17 in 1996-97 to 30 students per teacher in the year 2005-06. As far as senior secondary schools are concerned, the PTR stagnated at 14 pupils per teacher during 1996-97 to 2003-04 period, thereafter, showing the signs of falling trends in PTR.

Table 5.9: Year-wise number of schools, teachers, enrolment and pupil-teacher ratio in Mandi District.

| Year | Primary School | | | | Middle School | | | | High School | | | | Senior Secondary School | | | |
|---------|----------------|-----------|------------|------|---------------|-----------|------------|------|-------------|-----------|------------|------|-------------------------|-----------|------------|------|
| | No. | Tea chers | Enrol ment | PTR | No. | Tea chers | Enrol ment | PTR | No. | Tea chers | Enrol ment | PTR | No. | Tea chers | Enrol ment | PTR |
| 1996-97 | 1336 | 4515 | 101290 | 22:1 | 135 | 796 | 54266 | 68:1 | 133 | 1435 | 24303 | 17:1 | 33 | 842 | 12253 | 14:1 |
| 2000-01 | 1705 | 4181 | 96353 | 23:1 | 254 | 1132 | 58145 | 51:1 | 145 | 1489 | 30557 | 21:1 | 75 | 1215 | 17549 | 14:1 |
| 2001-02 | 1705 | 4181 | 96461 | 23:1 | 251 | 1121 | 58197 | 51:1 | 146 | 1495 | 32033 | 21:1 | 77 | 1227 | 17979 | 14:1 |
| 2002-03 | 1712 | 4133 | 91235 | 22:1 | 275 | 1173 | 59592 | 51:1 | 144 | 1479 | 30072 | 20:1 | 79 | 1358 | 19092 | 14:1 |
| 2003-04 | 1716 | 4989 | 79103 | 15:1 | 283 | 1197 | 59672 | 50:1 | 141 | 1458 | 30535 | 21:1 | 82 | 1362 | 20127 | 15:1 |
| 2004-05 | 1720 | 3972 | 82672 | 20:1 | 236 | 1241 | 56368 | 45:1 | 139 | 1111 | 33246 | 30:1 | 100 | 1814 | 21218 | 12:1 |
| 2005-06 | 1722 | 4006 | 78575 | 19:1 | 337 | 1260 | 54359 | 43:1 | 140 | 1108 | 33231 | 30:1 | 102 | 2078 | 21266 | 10:1 |

*PTR - Pupil teacher ratio

Source: Statistical Abstract of Mandi District, 2006 and Department of Education, Mandi.

During the course of survey, it was not possible to access the record of block-wise and school category-wise number of teachers except for primary section. Hence, the analysis was focused on the government run primary schools for the two points of time i.e. 2001 and 2005. The block-wise information on the Pupil - Teacher Ratio have been summarized in Table-5.10. The block-wise analysis of the number of teachers revealed a mild decrease in the number of teachers in almost all the blocks except for Seraj and Karsog blocks where this number has shown a marked increase during 2005 over 2001. At district level, the number of teachers dropped by 2.71 per cent during 2005 over 2001. The number of pupils per primary teacher worked out to 23 in respect of Sadar, Balh, Drang, Chauntra and Karsog blocks in 2001. Seraj had highest PTR (30:1) followed by Chachyot (27:1) and Sunder Nagar (24:1). The significant conclusion that emerges from the table is that, the PTR has shown a decline in all the blocks during the year 2005. At overall level, the number of pupil per teacher decreased to 20 in 2005 from 23 in 2001. The trend is indicative of the fact that students in this section now receive added personal attention and quality education.

Table 5.10: Block-wise pupil-teacher ratio in government run primary schools in Mandi district.

| Blocks | Total enrolments | | Total teachers | | Pupil - Teacher Ratio | |
|--------------|------------------|--------------|----------------|-------------|-----------------------|-------------|
| | 2001 | 2005 | 2001 | 2005 | 2001 | 2005 |
| Sadar | 9263 | 8449 | 409 | 402 | 23:1 | 21:1 |
| Balh* | 14041 | 11615 | 600 | 551 | 23:1 | 21:1 |
| Darang | 10673 | 9189 | 472 | 456 | 23:1 | 20:1 |
| Chauntra | 6785 | 5322 | 299 | 272 | 23:1 | 20:1 |
| Gopalpur | 8194 | 5915 | 386 | 350 | 21:1 | 17:1 |
| Dharampur | 5755 | 4433 | 438 | 416 | 13:1 | 11:1 |
| Chachyot | 7641 | 6840 | 286 | 278 | 27:1 | 25:1 |
| Seraj | 9746 | 9318 | 330 | 366 | 30:1 | 25:1 |
| Sunder Nagar | 11328 | 9190 | 473 | 451 | 24:1 | 20:1 |
| Karsog | 11449 | 10504 | 507 | 544 | 23:1 | 19:1 |
| Total | 94875 | 80775 | 4200 | 4086 | 23:1 | 20:1 |

* include Saigloo and Balh educational blocks

Source: Block Primary Education Officer of different educational blocks of Mandi district.

5.4 School Drop-outs

Low enrolment and high drop-outs rate reflect on the quality of schools. Attempt has been made here to investigate the number of school drop-outs in Mandi district. The block-wise drop-outs in Primary schools of Mandi district has been presented in

Table-5.11. It is worth noting from the table that overall, the student dropping out from schools in the district have declined from 358 in 2001 to 113 in 2005. This falling rate was seen both in case of male and female students. The percentage change of decline was found more in case of male students indicating thereby that girl students still are at a disadvantage in this regard. The analysis across blocks reflect that, Chauntra, Gopalpur, Balh, Sunder Nagar block had zero drop-outs in 2005 while in other blocks it is low. The main reason for this welcome state of affairs may be due to a combination of factors like improvement in pupil - teacher ratio, increase in the number of schools, reduced distance of schools, mid-day school meals, increased allocation of funds for primary education which significantly increase attendance, improved quality of schools, etc. There is also an increased awareness among the people for educating their children.

Table 5.11: Block-wise drop-out in primary schools in Mandi district.

| Blocks | 2001 | | | 2005 | | | % change | | |
|--------------|------|--------|-------|------|--------|-------|----------|---------|---------|
| | Male | Female | Total | Male | Female | Total | Male | Female | Total |
| Sadar | 30 | 33 | 63 | 11 | 10 | 21 | -63.33 | -69.69 | -66.66 |
| Balh | 2 | 1 | 3 | Nil | Nil | Nil | -100.00 | -100.00 | -100.00 |
| Drang | 5 | 12 | 17 | 3 | 3 | 6 | -40.00 | -75.00 | -64.70 |
| Chauntra | Nil | Nil | Nil | Nil | Nil | Nil | Nil | Nil | Nil |
| Gopalpur | Nil | Nil | Nil | Nil | Nil | Nil | Nil | Nil | Nil |
| Dharampur | 16 | 13 | 29 | 3 | 6 | 9 | -81.25 | -53.84 | -68.96 |
| Chachyot | 12 | 10 | 32 | 3 | 5 | 8 | -75.00 | -50.00 | -63.63 |
| Seraj | 23 | 26 | 49 | 8 | 9 | 17 | -65.21 | -65.38 | -65.30 |
| Sunder Nagar | 31 | 17 | 48 | Nil | Nil | Nil | -100.00 | -100.00 | -100.00 |
| Karsog | 57 | 70 | 127 | 18 | 34 | 52 | -68.42 | -51.42 | -59.05 |
| Total | 176 | 182 | 358 | 46 | 67 | 113 | -73.86 | -63.18 | -68.43 |

Source: Block Primary Education Officer of different educational blocks of Mandi district.

Drop-outs were also worked out for upper primary classes in the district and the same is given in Table-5.12. Drop-outs in upper primary classes were found to be on higher side in comparison to primary schools. At overall level, the drop-out cases however reduced by 27.82 per cent in 2005 over 2001. There was a significant decline in female student drop-outs at this level which is a heartening development. The rate of decline of female student drop-out is high in Gopalpur, Sadar, Sunder Nagar and Seraj. Inter-block analysis shows wide variations in the rate of change during 2005 over 2001. While in most blocks the drop-outs reduced considerably, yet in the blocks of Chauntra, Chachyot, Balh, Drang and Seraj alarming increase in drop-outs have been observed, which should be a matter of concern at the policy making level.

Table 5.12: Block-wise drop-outs in upper primary classes in Mandi District.

| Blocks | 2001 | | | 2005 | | | % change over 2001 | | |
|--------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------------|---------------|---------------|
| | Male | Female | Total | Male | Female | Total | Male | Female | Total |
| Sadar | 987 | 1232 | 2219 | 93 | 9 | 102 | -90.58 | -99.27 | -95.40 |
| Balh | NIL | NIL | NIL | 190 | 361 | 551 | - | - | - |
| Drang | NIL | NIL | NIL | 400 | 216 | 616 | - | - | - |
| Chauntra | 24 | NIL | 24 | 87 | 182 | 269 | 262.50 | - | 1020.84 |
| Gopalpur | 194 | 213 | 407 | 164 | - | 164 | -15.46 | -100.0 | -59.70 |
| Dharampur | 388 | 240 | 628 | 158 | 271 | 429 | -58.28 | 12.92 | -31.69 |
| Chachyot | 12 | 202 | 214 | 393 | 322 | 715 | 3175.00 | 59.40 | 50.47 |
| Seraj | NIL | NIL | NIL | 57 | - | 57 | - | - | - |
| Sunder Nagar | 441 | 658 | 1099 | 315 | 2 | 317 | -28.57 | -99.67 | -71.15 |
| Karsog | 174 | 367 | 541 | 284 | 200 | 484 | 63.22 | -45.5 | -10.54 |
| Total | 2220 | 2912 | 5132 | 2141 | 1563 | 3704 | -3.56 | -46.32 | -27.82 |

Source: Office of Deputy Director Education, Mandi.

5.5 Out of School Children

The question of why all children are not in schools is widely debated at several fora. However, following three factors are commonly acknowledged to be important obstacles to universal primary education. First, there is a problem of poverty. The poor can not afford to send their children to the schools in some cases, children may be employed as child workers and contribute to the family's earnings (an explicit opportunity cost of sending children to school). As the incidence of children labour is not correlated with the incidence of poverty across states, the literature suggests the child labour is not on account of poverty alone. While it is the children of the poor who work, there are important demand side factors that determine the pattern of child labour use. Also, a significant proportion of children not in school are also not working. So child labour can not entirely explain low school attendance.

Importantly, the costs of education may be too high for poor persons. Even in government schools with no tuition fees, there are other costs such as those of uniforms or text books. The PROBE survey found, for example, that on an average, the expenditure on fees, books, slates, and uniforms for a child was Rs. 318 a year. This is a high level of expenditure relative to income for many households such as that of an agricultural labourer. In such cases, free schooling and incentives such as free meals and books are needed to overcome the problem of non-attendance.

A second reason pertains to the quality of schooling and school infrastructure is woefully inadequate. For many children, the absence of a functioning school in the neighbourhood is the main determinant of non attendance. The problems of physical distance from a school are exacerbated by problems of social distance for children from underprivileged households (PROBE Team, 1999). Given that the average quality of schooling is very low, a frequently cited argument is that education of such poor quality is of little use. The low quality of education is blamed for low school enrolment and the high dropout rate. While these statements are valid, it is wrong to argue, as is often done, that without an improvement in quality, nothing much can be gained from universalizing primary education. The struggle for more schools and for universal education must be made together with the struggle for better quality.

Lastly, it is argued that there are problems of motivation, both among parents and children. These may be due to a range of factors including long years of deprivation, an environment in which there is no tradition of literacy, inadequate information about the returns to schooling, nutritional deprivation of children, low quality of school education, and so on. Empirical studies, however, indicate a high level of motivation among poor parents is needed. The recent experience of the MV Foundation in Andhra Pradesh shows that even poor parents are willing to send their children to school (Sinha, 1996). Parents are willing to take on extra work to see that their children go to school. In other words, there is demand for schooling even among poor parents and poor children.

The block-wise position of out of school children in Mandi district is presented in Table-5.13. The contents of the table indicate that the problem of out of school children is coming down. On overall basis, the number of out of school children during 2003-05 period decreased by 19.83 per cent. However, the decrease was found only in case of males, where the number of out of school children decreased by 49.19 per cent. In case of females, this number in fact increased by 13.89 per cent. The overall decrease may have resulted due to increase or upgrading the number of schools as well as higher literacy achievement among the parents and outcome of mid-day meal incentive. As is evidenced from the table, in the year 2003, all the blocks have reported out of school children with highest number of 44 in Sadar block followed

by 40 in Balh, 29 in Gopalpur and 28 in Dharampur totaling to 232 at the district level. During this year the number of out of school male children were relatively higher as compared to female children. In the year 2005, three blocks namely Sunder Nagar, Karsog and Seraj block has remarkably brought down the number of out of school children to nil. In contrast to this, three blocks i.e. Dharampur, Sadar and Drang witnessed a significant increase in the number of out of school children between 2003-05 period. The remaining four blocks have shown positive development by reducing the out of school children. The condition in case of male children has improved a lot, while in case of females there was an increase in the number of out of school children. Seen in the light of higher drop-out of female children, the situation calls for suitable incentives to remedy the situation.

Table 5.13: Block-wise out of school children in Mandi district.

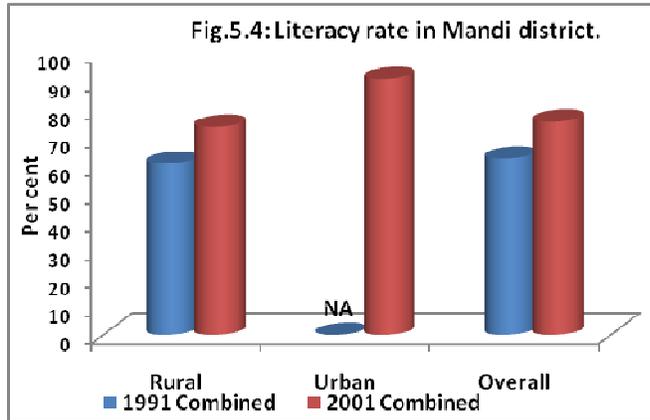
| Blocks | 2003 | | | 2005 | | | % change over 2003 | | |
|--------------|------------|------------|------------|-----------|------------|------------|--------------------|--------------|---------------|
| | Male | Female | Total | Male | Female | Total | Male | Female | Total |
| Sadar | 20 | 24 | 44 | 26 | 26 | 52 | 30.00 | 8.33 | 18.18 |
| Balh | 23 | 17 | 40 | 3 | 10 | 13 | -86.95 | -41.17 | -67.50 |
| Drang | 10 | 5 | 15 | 7 | 15 | 22 | -30.00 | 200.00 | 46.67 |
| Chauntra | 9 | 10 | 19 | 0 | 1 | 1 | -100.00 | -90.00 | -94.74 |
| Gopalpur | 14 | 15 | 29 | 6 | 15 | 21 | -57.14 | 0.00 | -27.59 |
| Dharampur | 15 | 13 | 28 | 19 | 50 | 69 | 26.66 | 284.60 | 146.43 |
| Chachyot | 12 | 13 | 25 | 2 | 6 | 8 | -83.33 | -53.84 | -68.00 |
| Seraj | 9 | 5 | 14 | 0 | 0 | 0 | -5.00 | -100.00 | -100.00 |
| Sunder Nagar | 5 | 5 | 10 | 0 | 0 | 0 | -100.00 | -100.00 | -100.00 |
| Karsog | 7 | 1 | 8 | 0 | 0 | 0 | -100.00 | -100.00 | -100.00 |
| Total | 124 | 108 | 232 | 63 | 123 | 186 | -49.19 | 13.89 | -19.83 |

Source: Department of Economics and Statistics, Mandi

5.6 Literacy Rate

The quality of population is intimately connected with education. Education plays a vital role in the betterment of socio-economic conditions, cultural life of the people, and in empowering a person to better face challenges of life. Literacy rate thus serves the purpose of a handy and ready indicator of development. The block-wise literacy rates in the district have been presented in Table-5.14, Fig.-5.4 and Appendix-XII to analyse the inter-block educational status of the district. .

A cursory glance on the table revealed significant progress in the literacy status of the people in Mandi district, during 1991-2001 period. In fact between these two censuses the literacy rate in Mandi district has gone up to 75.24 per cent in 2001 from 62.74 per cent in 1991



census. The status of females remains educationally backward as compared to males. The situation of women seems to be disturbing in some of the blocks of the district. The female - male literacy gap has reduced by 7.41 per cent in Mandi district during period of ten years. In rural areas this gap was relatively lesser that is to the

extent of 6.47 per cent only in contrast to urban areas.

During the year 2001, a significant variation was observed in the total literacy rate among the blocks. The total literacy rate was found highest (79.98%) in Gopalpur block and lowest (69.13%) in Drang block. In other blocks it ranged between 69.33 to 78.02 per cent. Among women the highest rate of literacy was 71.99 per cent in Gopalpur block followed by Dharampur (69.13%), Chauntra (65.56%), Sadar (65.04%), so on so forth. Lowest literacy rate among females was the lowest in Balh block (45.92%). The analysis of male - female gap in literacy rate across blocks, showed wide variations (Table-5.14). This gap worked out to be highest 27.08 per cent in Drang block followed by Karsog (23.70%), Sadar (23.60%), Chachyot (23.12%), Seraj (22.90%) etc in 2001. It is worth mentioning here that, the gap in male - female literacy rate has reduced considerably in almost all the blocks of the district between 1991 and 2001 census period. This gap in male female literacy has notably narrowed down to the highest extent (19.08%) in Seraj block; by 18.24 per cent in Chauntra block; by 9.07 per cent in Karsog block. This implies that the maximum improvement in female literacy was observed in educationally most backward blocks of the district. The general improvement in female literacy status has been made possible on account of favorable government policy for female education, general awareness among the parents for female literacy and growth in educational infrastructure and increased educational outlays. Positive impact on literacy has also been noticed among the traditionally deprived and disadvantaged groups of the society in the district.

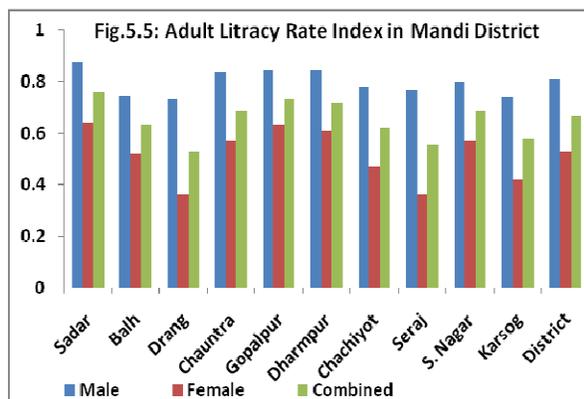
Table 5.14: Block-wise Literacy rate in Mandi district.

| Blocks | Census 1991 | | | | Census 2001 | | | |
|--------------|-------------|--------|-------|----------------------------------|-------------|--------|-------|----------------------------------|
| | Male | Female | Total | Male-female gap in literacy rate | Male | Female | Total | Male-female gap in literacy rate |
| Sadar | 75.54 | 45.34 | 60.63 | 30.20 | 88.64 | 65.04 | 73.84 | 23.60 |
| Balh | 80.27 | 56.49 | 68.38 | 23.78 | 65.39 | 45.92 | 77.78 | 19.47 |
| Drang | 71.31 | 37.22 | 54.03 | 34.09 | 82.94 | 55.86 | 69.13 | 27.08 |
| Chauntra | 80.23 | 52.31 | 64.80 | 27.92 | 75.24 | 65.56 | 75.61 | 9.68 |
| Gopalpur | 80.73 | 59.40 | 69.48 | 21.33 | 88.93 | 71.99 | 79.98 | 16.94 |
| Dharampur | 79.65 | 56.34 | 66.82 | 23.31 | 88.39 | 69.13 | 78.02 | 19.26 |
| Chachyot | 74.17 | 42.23 | 58.57 | 31.94 | 84.89 | 61.77 | 73.33 | 23.12 |
| Seraj | 70.89 | 29.51 | 50.82 | 41.38 | 84.43 | 61.53 | 69.33 | 22.90 |
| Sunder Nagar | 73.25 | 45.86 | 59.73 | 27.39 | 82.82 | 61.53 | 72.29 | 21.29 |
| Karsog | 68.20 | 35.41 | 52.27 | 32.79 | 81.81 | 58.11 | 70.00 | 23.70 |
| Total Blocks | 75.38 | 46.88 | 60.94 | 28.50 | 85.30 | 63.27 | 74.08 | 22.03 |
| Urban | NA | NA | NA | NA | 93.85 | 85.79 | 90.48 | 8.06 |
| District | 76.65 | 48.12 | 62.74 | 28.53 | 85.94 | 64.82 | 75.24 | 21.12 |

Source: District Statistical Abstract 2006.

5.6.1 Adult Literacy

Adult literacy is considered to be one of the big challenges in the improvement literacy drive. Adult literacy is also treated to be one of the important parameters of computing the educational attainment index along with the combined enrolment ratio index. Keeping in view the importance of adult literacy as one of the important factor of quality of life of the people in a particular area, the adult literacy rate and adult literacy rate index were computed and the same are presented in Table-5.15 and Fig.5.5.



The perusal of the table revealed 66.58 per cent adult literacy rate at overall level for the year 2001. The adult literacy rate for males was found 80.65 per cent while for the adult female it was only 53.36 per cent for the district as a whole. The block-wise analysis of adult literacy rate indicated wide variation among the various blocks of the district. The combined adult literacy rate was found highest in Sadar block (76.26%) followed by Gopalpur (73.28%),

Dharampur (71.69%), Chauntra (68.97%), Sunder Nagar (68.73%) and so on. It was lowest of 53.42 per cent in Drang block. Adult female literacy was on lower side in almost all the blocks of the district. It was least in Seraj block (35.67 per cent) and highest in Sadar block (64.39%). Wide variation was noticed in female adult literacy among various blocks of the district. Variability in this literacy has serious policy implications in terms of providing equal opportunities to all the blocks for educational attainments. Gap in the adult female literacy was highest (41.50%) in Seraj block followed by Drang block (37.13%), Karsog (32.24%) and Chachyot (30.83%) and so on. Male adult literacy was noticed highest in Sadar block (88.08%) and lowest in Drang block (73.13%). The variation in adult male literacy was relatively lower as compared to adult female literacy rate among the different blocks of the district. The adult literacy rate index followed similar pattern as the adult literacy rate as explained in the above paragraph.

Educational attainment index could not be computed in the absence of combined enrolment rate index, as the population data in this age group was not available.

Table 5.15: Block-wise adult literacy rate and literacy rate index in Mandi district

| Blocks | Adult Literacy Rate 2001 | | | Adult Literacy Rate Index 2001 | | |
|----------------|-----------------------------|--------|----------|-----------------------------------|--------|----------|
| | Male | Female | Combined | Male | Female | Combined |
| Sadar | 88.08 | 64.39 | 76.26 | 0.88 | 0.64 | 0.76 |
| Balh | 75.14 | 51.60 | 63.37 | 0.75 | 0.52 | 0.63 |
| Darang | 73.13 | 36.00 | 53.42 | 0.73 | 0.36 | 0.53 |
| Chauntra | 83.87 | 57.00 | 68.97 | 0.84 | 0.57 | 0.69 |
| Gopalpur | 84.78 | 63.55 | 73.28 | 0.85 | 0.63 | 0.73 |
| Dharampur | 84.79 | 60.82 | 71.69 | 0.85 | 0.61 | 0.72 |
| Chachyot | 77.87 | 47.04 | 62.01 | 0.78 | 0.47 | 0.62 |
| Seraj | 77.17 | 35.67 | 56.36 | 0.77 | 0.36 | 0.56 |
| Sunder Nagar | 80.50 | 56.65 | 68.73 | 0.80 | 0.57 | 0.69 |
| Karsog | 74.13 | 41.89 | 57.86 | 0.74 | 0.42 | 0.58 |
| Total district | 80.65 | 53.36 | 66.58 | 0.81 | 0.53 | 0.67 |

5.7 Child Labour

A closely related problem is that of child labour. Estimates of child workers vary from 17 to 44 million in India. While most of child workers do not attend school regularly, there are also children who are neither at school nor working. According to NSS data for 1993-4, for example, of rural boys in the age group 10 to 14, 76 per cent attended school,

11.7 per cent were workers, and 10.6 per cent were neither at school nor at work. So a substantial number of children were not attending school but this was not on account of participation in work. There are two points to note about these observations. First, it is possible that children's work is undercounted. Like women, work undertaken by children is also hidden work and not enumerated. Second, it indicated that there are children who are not attending school not because they have to work but for other reasons. It is pertinent to point out to the view that the elimination of child labour is closely tied to the spread of school education (Weiner, 1991). It is also easier to implement a policy of universal schooling than to enforce laws regulating the use of child labour. Appropriate data and child labour for the district was not available and hence a deeper analysis was not possible.

Health services

Health is important for human welfare. As a Gujarati proverb says “the first happiness is health, the second is a full stomach”. One can’t enjoy food if one is not healthy (of course, one can not be healthy if one doesn’t have enough food). To lead a productive life, one needs good health. As Viner (1953) observed “the first requirement of high labour productivity under modern conditions are that the masses of the population should be literate, healthy and sufficiently well-fed to be strong and energetic. Health, like education, is desirable in itself. Sickness or ill-health imposes a burden on other members of the family and also on society. Absenteeism from work, on account of ill-health, can result in a loss of production and productivity. Thus, to emerge as a wealthy nation, a healthy society is desirable. Health, however, can not be ensured simply by individual efforts. Social action is needed for sanitation, water supply, clean air, waste disposal and an environment which does not breed diseases or result in epidemics. Public policy and action is critical in ensuring adequate infrastructure and follow-up for a healthy society.

6.1 Block-wise staff position in PHC and Sub Centre

Physical health of the population is one of the important indicators of development. The health of the population, however, is determined by the level of medical infrastructure as well as the number of doctors, health workers per unit of population; of course, apart from the nutritional standards of food intake, type of environment, etc. In this regard, analysis of health services related infrastructure becomes important from the planning point of view.

Government Primary Health Centers (PHCs), Sub-Centers and Hospitals are the important health services providing medical facilities in the rural areas. Although many private practitioners have also started operating in rural areas, yet their number is relatively small and they are located mainly in the main business centers. Block-wise positions with regard to the number of PHCs, sub centers and hospitals in 2001 and 2005 are presented in Table-6.1 to 6.4. It is evident from the Table-6.1 that there has been marginal increase in the number of PHCs

during this period whereas number of government hospitals has remained the same. The number of sub centers declined during this period which may be due to the up-gradation of sub centers to that of PHCs. The different blocks of the district have a network of 6 government hospitals, 59 primary health centers and 308 sub centers. The four blocks namely; Balh, Chauntra, Chachyot and Seraj do not have any government hospital and depend upon primary health centers and sub-centers for the medical care. It is observed that over the years, there has been upgradation of sub-centers to primary health centers. The primary health centers have increased from 47 to 59 during the period 2001 to 2005.

Table 6.1: Block-wise health services in Mandi district.

| Blocks | 2001 | | | 2005 | | |
|--------------|-----------|------------|----------------|-----------|------------|----------------|
| | PHC | Sub Centre | Govt. Hospital | PHC | Sub Centre | Govt. Hospital |
| Sadar | 4 | 43 | 1 | 5 | 43 | 1 |
| Balh | 2 | 34 | -- | 5 | 33 | -- |
| Drang | 6 | 28 | 1 | 8 | 28 | 1 |
| Chauntra | 4 | 27 | -- | 4 | 27 | -- |
| Gopalpur | 8 | 33 | 1 | 8 | 30 | 1 |
| Dharampur | 6 | 33 | 1 | 6 | 31 | 1 |
| Chechyot | 3 | 19 | -- | 4 | 19 | -- |
| Seraj | 4 | 25 | -- | 5 | 24 | -- |
| Sunder Nagar | 7 | 44 | 1 | 10 | 41 | 1 |
| Karsog | 3 | 32 | 1 | 4 | 32 | 1 |
| Total | 47 | 318 | 6 | 59 | 308 | 6 |

Source: District Programme officer Mandi

Table-6.2 shows the number of PHCs and doctors posted in each block and the population served per PHC and per doctor in different blocks of the district (Fig.-6.1). The table shows that at district level, the number of PHCs and Doctors in rural areas has increased by 25.53 per cent and 10.71 per cent respectively in 2005 over the base year 2001. Though there has been a significant decline in the number people served by each PHCs, due to opening up of new PHCs, yet there was no remarkable increase in the number of doctors appointed in the rural areas resulting into little or no decline in the population served by a Doctor. The growth in population was found more than the increase in number of Doctors. Block-wise analysis reveals that in almost all the blocks, the number of PHCs has increased during the period under reference. However, the position in respect of Doctors, seems to be little bit

alarming in Gopalpur block, wherein the number of Doctors serving has come down by more than 33 per cent. In as many as six blocks viz; Sadar, Chauntra, Dharampur, Chachyot, Seraj and Karsog, there was no change in the number of Doctors. The remaining three blocks i.e. Balh, Drang and Sunder Nagar experienced a marginal increase in the number of Doctors serving in these blocks. It can be concluded that, the blocks where the number of PHCs and Doctors has increased the population attended/ served per PHC and per Doctor has decreased. Although some improvement has been there yet, the figures suggest that a lot needs to be done so far as provision of quality health services in the district is concerned.

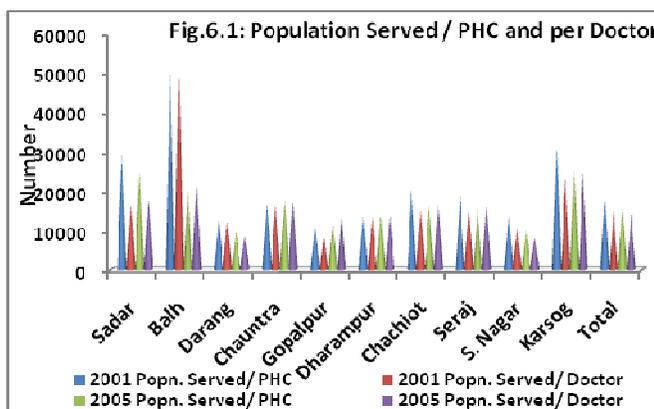


Table 6.2: Block-wise number of PHCs, number of doctors, population served/ PHC and population served/doctor

| Blocks | 2001 | | | | | 2005 | | | | |
|--------------|--------------------|-----------|-------------|--------------------------------|-----------------------------------|----------------------------|-----------|------------|--------------------------------|-----------------------------------|
| | Pop ⁿ . | No.of PHC | No. of Doc. | Pop ⁿ . Served/ PHC | Pop ⁿ . Served/ Doctor | Projected pop ⁿ | No.of PHC | No. of Doc | Pop ⁿ . Served/ PHC | Pop ⁿ . Served/ Doctor |
| Sadar | 114791 | 4 | 7 | 28697 | 16398 | 124066 | 5 | 7 | 24813 | 17724 |
| Balh | 100151 | 2 | 2 | 50075 | 50075 | 106240 | 5 | 5 | 21248 | 21248 |
| Drang | 73583 | 6 | 6 | 12283 | 12263 | 78734 | 8 | 9 | 9842 | 8748 |
| Chauntra | 66592 | 4 | 4 | 16648 | 16648 | 70108 | 4 | 4 | 17527 | 17527 |
| Gopalpur | 85243 | 8 | 9 | 10655 | 9471 | 89505 | 8 | 6 | 11188 | 14918 |
| Dharampur | 79191 | 6 | 6 | 13198 | 13198 | 82992 | 6 | 6 | 13832 | 13832 |
| Chachyot | 60750 | 3 | 4 | 20250 | 15187 | 65075 | 4 | 4 | 16269 | 16269 |
| Seraj | 73987 | 4 | 5 | 18496 | 14797 | 79610 | 5 | 5 | 15922 | 15922 |
| Sunder Nagar | 92930 | 7 | 9 | 13275 | 10325 | 98580 | 10 | 12 | 9858 | 8215 |
| Karsog | 93144 | 3 | 4 | 31048 | 23286 | 99813 | 4 | 4 | 24953 | 24953 |
| Total | 840362 | 47 | 56 | 17880 | 15006 | 894723 | 59 | 62 | 15165 | 14431 |

Source: District Programme officer Mandi.

The category-wise staff position in respect of different blocks for the years 2001 and 2005 has been presented in Table-6.3 and Table-6.4. A cursory glance on these tables reveal a wide gap between the sanctioned and filled positions in almost all categories of the staff except ministerial staff. This gap in the sanctioned and filled positions showed a marked

increase in the year 2005 over the base year for Nurses and Health Workers at the district level. There was marginal decrease in this gap, in case of number of doctors and paramedical staff in the year 2005 over 2001. The analysis indicated that all out efforts should be made to plug this gap between sanctioned and filled position to ensure the better health services to the already underprivileged rural people. In general, the staffing position has improved in Sunder Nagar, Balh, Drang and Sadar blocks, while in rest of the blocks the situation has either deteriorated or remained unchanged. It seems the staffing position has strengthened in those areas which are situated in the close proximity of main towns or those having strong public representation.

Table 6.3: Block-wise staff position in PHC and sub-center for the year 2001

| Blocks | No. of Doctors | | Nurses | | Health workers | | Ministerial staff | | Paramedical staff | | Others Class-IV | |
|--------------|----------------|----|--------|----|----------------|-----|-------------------|----|-------------------|-----|-----------------|----|
| | S | I | S | I | S | I | S | I | S | I | S | I |
| Sadar | 8 | 7 | 4 | 2 | 89 | 88 | 2 | 8 | 17 | 12 | 9 | 9 |
| Balh | 3 | 2 | 2 | 2 | 69 | 68 | 2 | 2 | 6 | 5 | 4 | 2 |
| Drang | 8 | 6 | 6 | 6 | 57 | 54 | 6 | 2 | 13 | 9 | 12 | 8 |
| Chauntra | 7 | 4 | 4 | 4 | 54 | 40 | 3 | 2 | 20 | 12 | 9 | 7 |
| Gopalpur | 13 | 9 | 7 | 7 | 66 | 63 | 7 | 7 | 22 | 19 | 17 | 15 |
| Dharampur | 7 | 6 | 6 | 1 | 66 | 59 | 6 | 6 | 18 | 10 | 12 | 5 |
| Chachyoit | 6 | 4 | 3 | 1 | 39 | 37 | 4 | 3 | 13 | 10 | 8 | 5 |
| Seraj | 9 | 5 | 4 | 3 | 51 | 49 | 5 | 4 | 16 | 12 | 10 | 8 |
| Sunder Nagar | 12 | 9 | 7 | 6 | 91 | 68 | 7 | 7 | 24 | 18 | 16 | 11 |
| Karsog | 6 | 4 | 3 | 2 | 65 | 58 | 3 | 2 | 11 | 5 | 7 | 7 |
| Total | 79 | 56 | 46 | 34 | 647 | 584 | 45 | 37 | 160 | 112 | 104 | 35 |

Source: District Programme officer Mandi. S = Sanctioned, I = In position

Table 6.4: Block-wise staff position in PHC and sub-center for the year 2005

| Blocks | No. of Doctors | | Nurses | | Health workers | | Ministerial staff | | Paramedical staff | | Others Class-IV | |
|--------------|----------------|----|--------|----|----------------|-----|-------------------|----|-------------------|-----|-----------------|----|
| | S | I | S | I | S | I | S | I | S | I | S | I |
| Sadar | 9 | 7 | 4 | 4 | 90 | 88 | 4 | 4 | 20 | 18 | 10 | 9 |
| Balh | 6 | 5 | 2 | 2 | 70 | 65 | 2 | 1 | 10 | 10 | 8 | 5 |
| Drang | 10 | 9 | 6 | 4 | 64 | 61 | 6 | 6 | 16 | 11 | 16 | 11 |
| Chauntra | 5 | 4 | 3 | 2 | 55 | 46 | 3 | 3 | 10 | 8 | 8 | 6 |
| Gopalpur | 12 | 6 | 7 | 2 | 68 | 60 | 7 | 6 | 22 | 15 | 17 | 15 |
| Dharampur | 9 | 6 | 6 | 2 | 66 | 55 | 6 | 6 | 20 | 13 | 12 | 5 |
| Chachyoit | 4 | 4 | 2 | 1 | 39 | 31 | 2 | 2 | 6 | 5 | 9 | 6 |
| Seraj | 6 | 5 | 3 | 1 | 50 | 26 | 3 | 3 | 9 | 7 | 8 | 4 |
| Sunder Nagar | 14 | 12 | 7 | 3 | 91 | 71 | 7 | 7 | 27 | 22 | 22 | 15 |
| Karsog | 6 | 4 | 3 | 3 | 65 | 43 | 3 | 3 | 12 | 6 | 9 | 7 |
| Total | 81 | 62 | 43 | 24 | 658 | 546 | 43 | 41 | 152 | 115 | 119 | 83 |

Source: District Programme officer Mandi. S = Sanctioned, I = In position

6.2 Malnutrition Status

It is said that children are the future of a nation. They can come up to this expectation only when the children are physically fit and mentally alert. Meeting nutritional requirements of the children thus is important for their physical and mental health. In this regard, Block-wise data for malnutrition status of the children upto 6 years of age in different blocks has been analyzed and the results are presented in Table-6.5. In order to ascertain the nutritional status of children below 6 years in different blocks of the district a total of 60065 children were weighed in different blocks of the district. Only 63.73 per cent of children in 2004-05 and 66 per cent of the total weighed children in 2005-06 were reported to be of normal weight. Therefore, the result of the analysis of these data presents a picture that requires immediate attention of the planners. It is a matter of great concern as 36 per cent of the children in this age group are malnourished.

The total malnourished children per thousand of children were estimated at 363 during 2004-05 for the district as a whole. Among all the blocks, Balh block showed better performance in terms of nutritional status. It was ranked first in Mandi district. The Sadar block ranked second followed by Seraj, Dharampur, Karsog, Sunder Nagar, etc. The blocks of Drang and Chauntra performed lowest in terms of nutritional status of children during the year 2005-06 (Appendix-XIII).

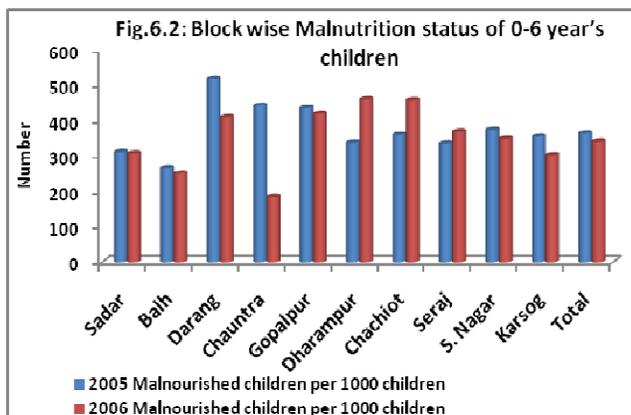
Table 6.5: Status of block-wise malnutrition of children (0-6 years) in Mandi District.

| Blocks | 2004-05 | | | | |
|--------------|-------------------------|-----------------------------------|-----------------------------|---|------|
| | Total children weighted | Total children with normal weight | Total children malnourished | Malnourished children per 1000 children | Rank |
| Sadar | 10262 | 7077 | 3185 | 310 | II |
| Balh | 5147 | 3781 | 1366 | 265 | I |
| Drang | 3644 | 1757 | 1887 | 517 | X |
| Chauntra | 3949 | 2213 | 1736 | 440 | IX |
| Gopalpur | 5987 | 3393 | 2594 | 433 | VIII |
| Dharampur | 3062 | 2029 | 1033 | 337 | IV |
| Chechoit | 6000 | 3852 | 2148 | 358 | VI |
| Seraj | 4981 | 3910 | 1671 | 335 | III |
| Sunder Nagar | 7558 | 4736 | 2822 | 373 | VII |
| Karsog | 9475 | 6169 | 3346 | 353 | V |
| Total | 60065 | 38917 | 21788 | 363 | |

Source: District Programme Officer, Mandi.

The malnourished children have further been categorized into 4 categories viz; mild, moderate, severe and very severe. The position of different blocks in this regard is

presented in Table-6.6 for 2004-05, Fig.-6.2 and Appendix-XIV for the year 2005-06. The table reveals that fortunately not many children are in category of severe and very severely malnourished. Majority of the children are in the category of mildly malnourished (77.68%) followed by that of moderately malnourished (22.04%).



The children having severe and very severe malnutrition status worked out to 0.26 and 0.02 per cent respectively of the total malnourished children in the district. In general, we may have to strengthen the mid-day meal programme in primary schools and those of the angan- waries, etc. The analysis across the blocks shows varying result as far as degree of

Table 6.6: Status of block-wise malnutrition of children (0-6 years) in Mandi district for the year 2004-05.

| Blocks | Total malnourished children | Grade-I (Mild) | Grade-II (Moderate) | Grade-III (Severe) | Grade-IV (Very severe) |
|--------------|-----------------------------|------------------|---------------------|--------------------|------------------------|
| Sadar | 3185 (100.00) | 2600 (81.63) | 573 (17.99) | 11 (0.35) | 1 (0.03) |
| Balh | 1366 (100.00) | 1150 (84.19) | 211 (15.45) | 5 (0.36) | -- |
| Drang | 1887 (100.00) | 1464 (77.58) | 416 (22.05) | 7 (0.37) | -- |
| Chauntra | 1736 (100.00) | 1221 (70.34) | 512 (29.49) | 3 (0.17) | -- |
| Gopalpur | 2594 (100.00) | 2023 (77.99) | 560 (21.59) | 9 (0.35) | 2 (0.07) |
| Dharampur | 1033 (100.00) | 864 (83.64) | 160 (15.49) | 8 (0.77) | 1 (0.10) |
| Chechoit | 2148 (100.00) | 1294 (60.24) | 853 (39.71) | 1 (0.05) | -- |
| Seraj | 1671 (100.00) | 1323 (79.17) | 348 (20.83) | -- | -- |
| Sunder Nagar | 2822 (100.00) | 2208 (78.24) | 604 (21.40) | 10 (0.36) | -- |
| Karsog | 3346 (100.00) | 2779 (83.05) | 566 (16.92) | 1 (0.03) | -- |
| Total | 21788 (100.00) | 16926 (77.68) | 4803 (22.04) | 55 (0.26) | 4 (0.02) |

Figures in parentheses are percentage to respected total malnourished children
Source: District Programme Officer, Mandi.

malnourishment is concerned. Among all the blocks Chachiyoit block had maximum of 40 per cent of total malnourished, as moderately malnourished. Chauntra block had 29.49 per cent followed by Drang (22.05%), Gopalpur (21.59%), Sunder Nagar (21.40%) and Seraj 20.83 per cent as moderately malnourished children. These blocks in particular require greater attention and better health care services aimed at improving the nutritional status of the children.

6.3 Immunization Progress

Immunization against various diseases during childhood is very important for long term success of health programmes. Immunization of children at early age against diseases like diptheria, polio and measles, etc. is done regularly by the parents, particularly in urban areas/ centers. In rural areas, as well, awareness in this regard is quite high and the people are taking due care in this regard. Mandi district is covered under strong network of immunizing programmes. These immunization programmes are regularly excluded in all the blocks of the district and are run through a network of primary health centers, sub-centers and hospitals spreaded in different blocks of the district. It can be seen from the table that more than 98 per cent of the eligible children have been immunized during the year 2005. The immunization was successfully and regularly done in all the blocks of the Mandi. The block-wise progress of immunization of eligible children for the year 2001 and 2005 have been presented in Table-6.7 and 6.8.

At overall level, about 83.17 per cent of the eligible children were immunized during 2001, while this figure rose to 98.29 per cent of the eligible children in 2005. The block-wise position of the progress in this regard is also satisfactory, with the percentage of immunized children ranging between 94.16 per cent in Seraj and 99.86 per cent in Dharampur block in 2005. In case of Karsog block, immunization progress was very low during 2001. Here the percentage of immunized children was just 47.32 per cent of the eligible children in 2001. However, the position of this block improved significantly in 2005. It is evident from the table that the proportion of immunized children is relatively high in all the blocks, implying thereby that the people of the district are well aware of the utility of immunization programme and are actively participating in this programme.

Table 6.7: Block-wise immunization progress for the year 2001.

| Blocks | BCG | | DPT - Polio-I + II + III + Boster | | T1+T2+Boster | | Measles | | Total | | |
|--------------|--------------|--------------|-----------------------------------|--------------|--------------|--------------|--------------|--------------|---------------|---------------|-----------------|
| | Eligible | Immunized | Eligible | Immunized | Eligible | Immunized | Eligible | Immunized | Eligible | Immunized | Immunized % age |
| Sadar | 2554 | 2355 | 8712 | 8426 | 3879 | 3814 | 2237 | 2171 | 17382 | 16766 | 96.46 |
| Balh | 1464 | 1419 | 5838 | 5783 | 2380 | 2362 | 1482 | 1464 | 11164 | 11028 | 98.78 |
| Drang | 1782 | 1734 | 5870 | 6811 | 1892 | 1853 | 1668 | 1540 | 12212 | 11938 | 97.76 |
| Chauntra | 1446 | 1411 | 5770 | 5638 | 2217 | 2169 | 1528 | 1496 | 10961 | 10714 | 97.75 |
| Gopalpur | 2115 | 1995 | 8286 | 7710 | 3697 | 3333 | 2119 | 1960 | 16217 | 14998 | 92.48 |
| Dharampur | 2063 | 1977 | 7749 | 7371 | 3641 | 3380 | 2113 | 1974 | 15566 | 14702 | 94.45 |
| Chechyoit | 1698 | 1389 | 5694 | 7391 | 2288 | 2181 | 1504 | 1397 | 11184 | 10358 | 92.61 |
| Seraj | 1624 | 1527 | 5038 | 4796 | 2006 | 1930 | 1566 | 1492 | 10234 | 9745 | 95.22 |
| Sunder Nagar | 2409 | 2314 | 8697 | 8541 | 3505 | 3459 | 2292 | 2230 | 16903 | 16544 | 97.88 |
| Karsog | 2338 | 2168 | 8077 | 7791 | 3827 | 3752 | 2181 | 2060 | 33326 | 15771 | 47.32 |
| Total | 19493 | 18289 | 70731 | 68258 | 29332 | 28233 | 18690 | 17784 | 178322 | 148308 | 83.17 |

Source: District Programme, Officer Mandi.

Table 6.8: Block-wise immunization progress for the year 2005.

| Blocks | BCG | | DPT - Polio-I + II + III + Boster | | T1+T2+Boster | | Measles | | Total | | |
|--------------|--------------|--------------|-----------------------------------|--------------|--------------|--------------|--------------|--------------|---------------|---------------|-----------------|
| | Eligible | Imunized | Eligible | Imunized | Eligible | Imunized | Eligible | Imunized | Eligible | Imunized | Immunized % age |
| Sadar | 2973 | 2834 | 11434 | 11219 | 4959 | 4913 | 2714 | 2650 | 22080 | 21616 | 97.90 |
| Balh | 1430 | 1392 | 5582 | 5566 | 2544 | 2535 | 1468 | 1461 | 11024 | 10945 | 99.28 |
| Drang | 1668 | 1626 | 6237 | 6220 | 2331 | 2328 | 1602 | 1590 | 11838 | 11764 | 99.37 |
| Chauntra | 1523 | 1454 | 5627 | 5460 | 1287 | 1225 | 1370 | 1323 | 9807 | 9462 | 96.48 |
| Gopalpur | 1519 | 1510 | 5492 | 5485 | 1961 | 1959 | 1295 | 1295 | 10267 | 10249 | 99.80 |
| Dharampur | 1700 | 1690 | 6672 | 6672 | 2324 | 2324 | 1810 | 1803 | 12506 | 12489 | 99.86 |
| Chechyoit | 1382 | 1360 | 4872 | 4795 | 1630 | 1590 | 1315 | 1296 | 9199 | 9041 | 98.28 |
| Seraj | 1638 | 1517 | 3144 | 2905 | 2622 | 2507 | 1658 | 1604 | 9062 | 8533 | 94.16 |
| Sunder Nagar | 2556 | 2495 | 9772 | 9702 | 4199 | 4176 | 2437 | 2418 | 18964 | 18791 | 99.09 |
| Karsog | 2225 | 2203 | 8215 | 8004 | 3564 | 3493 | 2135 | 2047 | 16139 | 15747 | 97.57 |
| Total | 18614 | 18081 | 67047 | 66028 | 27421 | 27050 | 17804 | 17487 | 130886 | 128646 | 98.29 |

Source: District Programme Officer, Mandi.

6.4 Block-wise Births

The block-wise number of new born during the year 2001 and 2005 have been given in Table-6.9. It can be seen from the table that the total number of newly born children was 11.32 per cent higher in 2005 over 2001 in the study district. The table reveals the positive growth in both male and female births during the span of four years. While the birth of male children has shown 11.39 per cent increase, the female birth on the other hand was found 11.24 per cent higher during 2005 in comparison to the year 2001. Block-wise analysis shows, that Balh, Drang, Gopalpur, Dharampur and Seraj blocks indicated higher births in 2005 in relation to the year 2001, while in rest of blocks the number of births was lesser in this year.

Table 6.9: Block-wise and gender-wise new born (births) in Mandi district.

| Blocks | 2001 | | | 2005 | | |
|--------------|-------------|-------------|--------------|-------------|-------------|--------------|
| | Male | Female | Combined | Male | Female | Combined |
| Sadar | 1184 | 958 | 2142 | 1115 | 939 | 2054 |
| Balh | 559 | 555 | 1114 | 632 | 625 | 1257 |
| Drang | 768 | 629 | 1397 | 798 | 658 | 1456 |
| Chauntra | 569 | 439 | 1008 | 470 | 398 | 868 |
| Gopalpur | 887 | 707 | 1588 | 1053 | 826 | 1879 |
| Dharampur | 603 | 407 | 1010 | 1216 | 957 | 2173 |
| Chachyot | 623 | 583 | 1206 | 666 | 531 | 1197 |
| Seraj | 521 | 367 | 888 | 622 | 447 | 1099 |
| Sunder Nagar | 884 | 725 | 1009 | 816 | 665 | 1481 |
| Karsog | 755 | 697 | 1452 | 796 | 673 | 1469 |
| Total | 7347 | 6067 | 13414 | 8184 | 6749 | 14933 |

Source: District Programme Officer and ICDS, Mandi.

6.5 Block-wise Infant Mortality

The block-wise number of infant deaths has been presented in Table-6.10. It is quite clear from the table that the total number of infant deaths has gone down marginally in the year 2005 in comparison to 2001. While male deaths showed a marginal increase, the female infant mortality recorded a decline in 2005 over the base year. The number of infant deaths were lesser in 2005, in respect of Balh, Drang, Chauntra, Chechiyot and Karsog blocks. In Dharampur block, the year 2005 witnessed abnormally higher infant deaths, followed by Seraj and Sunder Nagar.

Table 6.10: Block-wise infant mortality in Mandi district.

| Blocks | Year 2001 | | | Year 2005 | | |
|---------------------|-----------|--------|----------|-----------|--------|----------|
| | Male | Female | Combined | Male | Female | Combined |
| Sadar | 32 | 15 | 47 | 31 | 16 | 47 |
| Balh | 21 | 21 | 42 | 20 | 19 | 39 |
| Drang | 21 | 20 | 41 | 12 | 7 | 19 |
| Chauntra | 8 | 7 | 15 | 5 | 6 | 11 |
| Gopalpur | 25 | 26 | 51 | 30 | 25 | 55 |
| Dharpur | 10 | 9 | 19 | 28 | 24 | 52 |
| Chachyot | 26 | 21 | 47 | 15 | 10 | 25 |
| Seraj | 15 | 11 | 26 | 22 | 16 | 38 |
| Sunder Nagar | 5 | 5 | 10 | 11 | 7 | 18 |
| Karsog | 29 | 21 | 50 | 22 | 19 | 41 |
| Total | 192 | 156 | 348 | 196 | 149 | 345 |

Source: District Programme Officer and ICDS, Mandi.

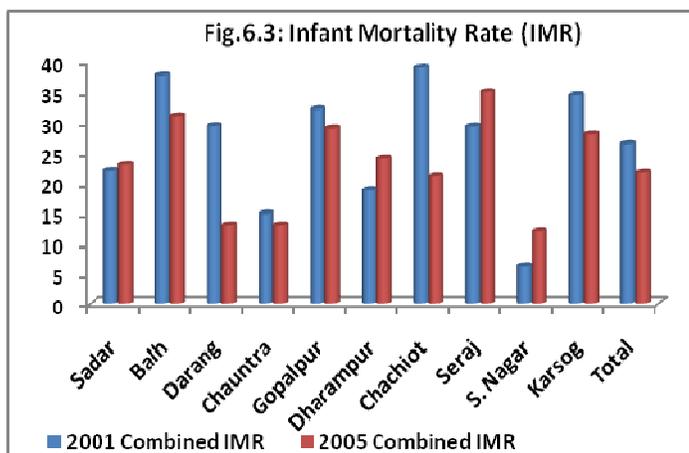
6.6 Infant Mortality Rate

The level of infant mortality is a basic indicator of the quality of life in a society. The socio-economic consequences of the child morbidity are significant. Among biggest challenges to bring down Infant Mortality Rate (IMR) would be to identify the different factors which contribute to infant mortality and its effective management. The block-wise position of IMR for Mandi district, has been summarized in Table-6.11. The infant mortality rate for the district as a whole during 2005 has been estimated to be 21.60 per thousand of live births. This means that two out of every hundred children born in the district did not survive till their first birthday. There has been however, steady mortality decline over the base year 2001 in the infant mortality rate for the district as a whole. This decline was evident in both male and female mortalities.

The important thing to note is that mortality rate among female child was relatively higher in 2001, which in 2005 was lesser than male mortality rate. Infant mortality in the district represents a significant block-wise variation. Balh, Seraj, Gopalpur, Karsog, Dharpur are among the blocks representing higher infant mortality rate in the district during 2005. Seraj and Balh are among the worst performing blocks with respect to IMR. Sunder Nagar, Chauntra & Drang are among the better performing blocks in the district. Sex-wise variation among different blocks represents an interesting pattern. In most of the blocks the

sex-wise differentiations do not represent wide variation, but among few blocks notably Mandi Sadar, Drang and Chauntra, gap seems to be higher. During the year 2001, sex-wise variation was more prominent in as many as eight blocks but in 2005 this gap seems to be reducing. In view of the inter-block sex-wise differentiation in IMR, special strategies need to be evolved to address the disparities that exist among blocks in this regard..

Infant mortality of male child in Seraj is 35 whereas their female siblings score is 34. Similarly, in Sunder Nagar, IMR (male) is 28 corresponding to 17 in case of IMR (female). Chauntra, Gopalpur and Dharampur are also the blocks where more female children are dying with respect to their male siblings. The current data on IMR do not show any sign of male preference and selective abortions in the district.



The analysis clearly reflects that for any further intervention to bring down the IMR, the focus areas should be to improve the postnatal care and hygiene conditions, availability of water, and focus on prevention of pneumonia, diarrhea, and malaria like diseases.

Table 6.11: Block-wise infant mortality rate (IMR) in Mandi district.

| Blocks | 2001 | | | 2005 | | |
|--------------|-------|--------|----------|-------|--------|----------|
| | Male | Female | Combined | Male | Female | Combined |
| Sadar | 27.02 | 15.65 | 21.94 | 28.00 | 17.00 | 23.00 |
| Balh | 37.56 | 37.83 | 37.70 | 32.00 | 30.00 | 31.00 |
| Drang | 27.34 | 31.79 | 29.34 | 15.00 | 11.00 | 13.00 |
| Chauntra | 14.05 | 15.94 | 14.88 | 11.00 | 15.00 | 13.00 |
| Gopalpur | 28.37 | 36.77 | 32.11 | 29.00 | 30.00 | 29.00 |
| Dharampur | 16.58 | 22.11 | 18.81 | 23.00 | 25.00 | 24.00 |
| Chachyot | 41.73 | 36.02 | 38.97 | 23.00 | 19.00 | 21.00 |
| Seraj | 28.79 | 39.97 | 29.27 | 35.00 | 34.00 | 35.00 |
| Sunder Nagar | 5.65 | 6.89 | 6.21 | 13.00 | 11.00 | 12.00 |
| Karsog | 38.11 | 30.12 | 34.43 | 28.00 | 28.00 | 28.00 |
| Overall | 26.52 | 27.31 | 26.37 | 23.70 | 22.00 | 21.60 |

Source: District Programme Officer, Office of Chief Medical Officer, Mandi.

Health index is considered to be the basic constituent of the human development index. Longevity index measured by the life expectancy at birth, is thought to be both valuable in itself and also helpful for pressurizing other objectives as widely used as a standard methodology in various UNDP reports on human development. Due to lack of availability of data on life expectancy from any agency, the other measure called as Infant Mortality Rate has been used in place of life expectancy to work out the health index for different blocks of Mandi district. Though the slight variation adopted in the calculation of health index renders this index non comparable with other states because of obvious reasons, yet these indices give a fair idea about the inter-block variations in the levels of human development in the study district.

The standard methodology provided by Himachal Pradesh Human Development Resource Coordination Society (Hphdrcs) does not seem to be truly applicable in the study district, because the minimum infant mortality rate prescribed in the methodology was far higher as compared to IMR of many blocks of the district. As a consequence of this variation in the minimum value IMR in some blocks of the district from that of the national minimum IMR, the health/ life index so calculated turned out to be greater than unity. Keeping this situation in view, an attempt was made to work out the health index by calculating IMR on the basis of maximum and minimum within the blocks of the district. The important limitation of these indices is that they can be used to see the inter block differentiation in health performance of the population of the study district only. In this section, an attempt has been made to present health indices in both the situations.

The block-wise infant mortality rate index and health index worked out by standard methodology for the year 2001 and 2005 in Mandi district is placed in Table-6.12. Following the standard methodology, the infant mortality index for the year 2001 and 2005 works out to be 0.03 and (-) 0.003 respectively at overall level. Consequently, the combined health index was estimated at 0.97 and 1.00 for the year 2001 and 2005 respectively, indicating thereby a slight improvement in the health status in the district.

The analysis across the blocks revealed an improvement in the health indices during 2005 over 2001, in almost all the blocks barring the case of Sunder Nagar block. As far

as the ranking of blocks is concerned, both Drang and Chauntra blocks each rank at the top position followed by Sadar, Chachyot, all having magnitude of health index greater than unity. The next in importance was Dharampur block followed by Gopalpur, Karsog, Sunder Nagar etc. If the standard methodology is adopted for the computation of health index, almost all the blocks of the district indicate the attainment of better health conditions of the peoples of the study district in comparison to health indices of the other blocks/ states of the country.

Table 6.12: Block-wise infant mortality rate index and health index in Mandi district based on standard methodology.

| Blocks | 2001 | | 2005 | |
|--------------|--------------|-----------------------|--------------|-----------------------|
| | Combined IMR | Combined Health Index | Combined IMR | Combined Health Index |
| Sadar | 0.0 | 1 | -0.01 | 1.01 |
| Balh | 0.11 | 0.89 | 0.06 | 0.94 |
| Drang | 0.05 | 0.95 | -0.06 | 1.06 |
| Chauntra | -0.05 | 1.05 | -0.06 | 1.06 |
| Gopalpur | 0.07 | 0.93 | 0.02 | 0.98 |
| Dharmpur | -0.02 | 0.98 | 0.01 | 0.99 |
| Chachyot | 0.12 | 0.88 | 0.00 | 1 |
| Seraj | 0.05 | 0.95 | 0.09 | 0.91 |
| Sunder Nagar | -0.11 | 1.11 | 0.05 | 0.95 |
| Karsog | 0.09 | 0.91 | 0.05 | 0.95 |
| Overall | 0.03 | 0.97 | -0.003 | 1 |

Note: (taking 166 as max & 22 as min. in Damoh, Madhya Pradesh and Hyderabad, Andhra Pradesh respectively.)

The block-wise infant mortality rate indices and health indices for 2001 and 2005, based on maximum and minimum IMRs calculated for respective years at regional level is given in Table-6.13, using the above mentioned procedure, the IMR index worked out to 0.62 in 2001 which slid down to 0.42 in the year 2005. The significant feature of the table is that there comes out to be wide variation in IMR indices across the block in both the study years i.e. 2001 and 2005. Similar pattern was observed in case of health indices also. At overall level a marked improvement was observed in the combined health index between 2001-05 period. In quantitative terms it increased from 0.38 in 2001 to 0.58 in 2005. It is disheartening to note that the relative health conditions have deteriorated in respect of Seraj and Dharampur during the year 2005 over 2001 year. The rest of the blocks is exhibiting an improvement in the health

conditions during the span of four years. As far as ranking of the blocks is concerned, Sunder Nagar block can be ranked at the top position followed by Drang and Chauntra, Chachyot and Sadar blocks. The other blocks notably Seraj, Balh, Gopalpur, Karsog, Dharampur, needs added attention in view of lower human indices.

Table 6.13: Block-wise infant mortality rate index and health index in Mandi district based on modified methodology.

| Blocks | 2001 | | 2005 | |
|--------------|--------------|-----------------------|--------------|-----------------------|
| | Combined IMR | Combined Health Index | Combined IMR | Combined Health Index |
| M.Sadar | 0.48 | 0.52 | 0.48 | 0.52 |
| Balh | 0.96 | 0.04 | 0.83 | 0.17 |
| Drang | 0.70 | 0.30 | 0.04 | 0.96 |
| Chauntra | 0.26 | 0.74 | 0.04 | 0.96 |
| Gopalpur | 0.79 | 0.21 | 0.74 | 0.26 |
| Dharmpur | 0.38 | 0.62 | 0.52 | 0.48 |
| Chachyot | 1 | 0.00 | 0.39 | 0.61 |
| Seraj | 0.70 | 0.30 | 1 | 0.00 |
| Sunder Nagar | 0 | 1 | 0 | 1 |
| Karsog | 0.86 | 0.14 | 0.70 | 0.30 |
| Overall | 0.62 | 0.38 | 0.42 | 0.58 |

Note: (comparing among blocks for Maximum and Minimum)

Maximum in Chachyot 38.97 (2001)

Maximum in Seraj 35.00 (2005)

Minimum in Sunder Nagar 6.21 (2001)

Minimum in Sunder Nagar 12.00 (2005)

A comparison of block-wise ranking based on health index by two different methodologies is depicted in Table-6.14. The cursory glance of table shows that the ranking position of blocks drastically changed while adopting maximum and minimum values of IMR as per the two methodologies mentioned above. While taking the national maximum and minimum values, Drang block and Chauntra block stood at rank first followed by Sadar block at second, Chachyot at third and Sunder Nagar block and Karsog block at sixth rank both. However, while computing IMR from the local minimum values, the Sunder Nagar block which stood at sixth rank previously is now ranked first. Drang and Chauntra blocks shift to second rank and Sadar block position changed from second rank to fourth rank. Both the methodologies have their own implications and importance and may be used for comparing at different levels. For

planning at micro-level, it seems appropriate that local maximum and minimum values of IMR be taken into consideration. Doing so would implicitly take into consideration the local factors, physical, social and natural, that influence our planning and implementation of developmental programmes.

Table 6.14: Comparison in ranking position of different blocks in Mandi district using two different methodologies.

| Blocks | Rank according to standard methodology (IMR Max.166 & Min. 22) | Rank according to methodology taking IMR Max. & Min. within the blocks. |
|--------------|--|---|
| Sadar | II | IV |
| Balh | VII | VIII |
| Drang | I | II |
| Chauntra | I | II |
| Gopalpur | V | VII |
| Dharmpur | IV | V |
| Chachyot | III | III |
| Seraj | VIII | IX |
| Sunder Nagar | VI | I |
| Karsog | VI | VI |

The health/ life index is calculated on the basis of infant mortality rate index which is greatly influenced by the female literacy standard, immunization coverage, malnutrition status, and safe drinking water and sanitation facilities. The status of all these parameters, except drinking water and sanitation, has been discussed earlier, the remaining two are discussed below;

6.7 Drinking water

The safe drinking water is the necessity of life. The irrigation and public health department in the district has covered all the villages and is supplying drinking water to all the villages of 10 developmental blocks of the district. The households level data on availability of tap water was not available so much can not be said on household level coverage. However, it was brought out during the survey that regularity of water supply needs to be ascertained. Emphasis has to be on augmentation of supply and maintenance of the water supply infrastructure to make full use of the facility.

6.8 Sanitation

The block-wise achievements made in respect of constructing the toilet facilities in the rural households up to the year 2005 is given in Table-6.15. The data reveals that in the rural areas only about 28 per cent household are having toilets in their homes. Comparing the position among the blocks the Dharampur block is having highest percentage i.e. 45.27 per cent of households with toilet facility, followed by Gopalpur 37.98 per cent, Balh 33.19 per cent, Chontra 29.90 per cent and Sadar block 29.80 per cent. The Seraj block which is the highly remote area has only 9.91 per cent households with proper sanitation facilities attached to their houses. Thus much is needed to educate the masses regarding hygienic conditions of living and improving the sanitation in the area for attaining the higher standard of living.

Table 6.15: Block-wise sanitation status up to 2005 in Mandi district.

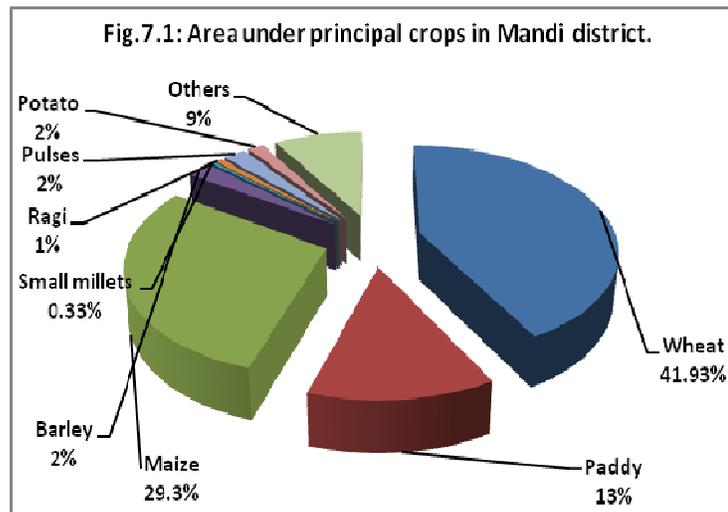
| Block | Total No. of Household | No. of household with toilets | No. of household with out toilets | Per cent household |
|--------------|------------------------|-------------------------------|-----------------------------------|--------------------|
| Sadar | 21403 | 6378 | 15025 | 29.80 |
| Balh | 22154 | 7352 | 14802 | 33.19 |
| Drang | 17371 | 3623 | 13748 | 20.86 |
| Chontra | 17108 | 5116 | 11992 | 29.90 |
| Gopalpur | 19794 | 7517 | 12277 | 37.98 |
| Dharmpur | 20310 | 9195 | 11115 | 45.27 |
| Chachyot | 14141 | 2598 | 11543 | 18.37 |
| Saraj | 14796 | 1467 | 13329 | 9.91 |
| Sunder Nagar | 19283 | 5166 | 14117 | 26.79 |
| Karsog | 17655 | 3150 | 14505 | 17.84 |
| Total | 184015 | 51562 | 132453 | 28.02 |

Source: District Sanitation Mission Report 2006, DRDA, Mandi

Cropping pattern

7.1 Agriculture

The pattern of cropping highlights the nature of agriculture in an agrarian economy. Agriculture in Mandi district is gradually picking up momentum in favour of high value crops to augment income and employment. The Fig.-7.1 summarizes the area under principal crops in the district. The table revealed that wheat, maize and paddy are the main cereal crops grown in the district, accounting for 41.93, 29.33 and 12.67 per cent of the gross cropped area of 158557 hectares respectively. Barley occupies 2.40 per cent and pulses 2.19 per cent of gross cropped area (Appendix-XV). Next is importance was potato accounting for 1.55 per cent of gross cropped area (GCA). Millets, oilseeds, spice crops together occupied nearly 1.65 per cent GCA in the district. Other crops which include predominantly fruits and vegetables accounted for 7.64 per cent of total cropped area in the district during 2004-05.

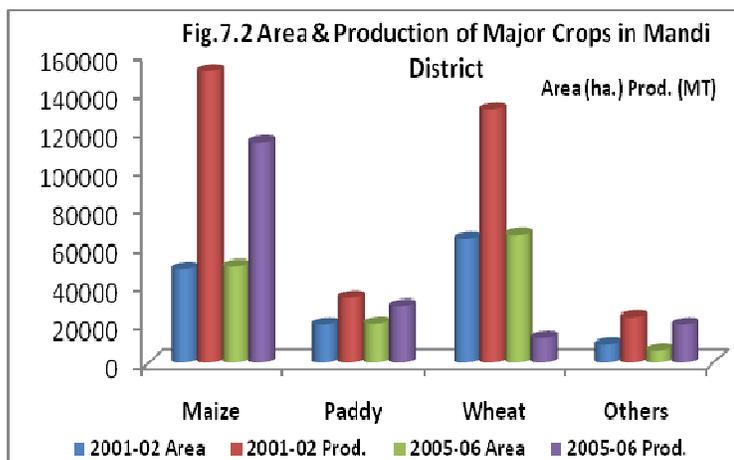


7.1.1 Cropping pattern changes - A Temporal Analysis

The temporal behavior of crop pattern changes was evaluated by considering changes in the area and production of each important crop and between two points of time both at block and district levels. The results are shown in Tables-7.1 to 7.8 and Fig.-7.2. These tables reveal the following broad features.

The area under maize in the district has increased from 48758 hectares in 2001-02 to 50095 hectares in 2005-06 i.e. by 2.74 per cent (Table-7.1). The maximum increase

in the area was found in Balh block (55.64%) followed by Dharampur block (9.23%), Chauntra (8.58%), Seraj (5.73%) and Drang which experienced an increase of 4 per cent between 2001-02 to 2005-06 period. The other blocks registered negative growth in maize area during the study period. In the matter of production, the district as a whole posted negative growth of 24.36 per cent in 2005-6 over the base year. The analysis across blocks indicated that the production growth was



highest in Dharampur block (165.90%) followed by Chauntra (164%), Drang (153.2%), Balh (134.6%), Gopalpur (127.7%). The growth observed was partly due to area expansion and partly due to improvement in the productivity levels.

Table 7.1: Block-wise area and production of maize in Mandi district.

| Block | 2001-2002 | | | | 2005-2006 | | | | % change over 2001-02 | |
|--------------|--------------|---------------|---------------|---------------|--------------|---------------|---------------|---------------|-----------------------|---------------|
| | Area (Ha) | % | Prod. (MT) | % | Area (Ha) | % | Prod. (MT) | % | Area | Prod. |
| Sadar | 8502 | 17.43 | 26440 | 17.43 | 8211 | 16.40 | 19996 | 17.43 | -3.42 | -24.37 |
| Balh | 5059 | 10.37 | 15733 | 10.37 | 7874 | 15.72 | 11869 | 10.43 | 55.64 | 134.6 |
| Drang | 3694 | 7.57 | 11488 | 7.57 | 3842 | 7.66 | 9356 | 8.15 | 4.00 | 153.2 |
| Chauntra | 2959 | 6.06 | 9202 | 6.06 | 3213 | 6.41 | 7824 | 6.82 | 8.58 | 164.4 |
| Gopalpur | 7190 | 14.74 | 22360 | 14.74 | 6725 | 13.42 | 16377 | 14.27 | -6.46 | 127.7 |
| Dharampur | 2361 | 4.84 | 7342 | 4.84 | 2579 | 5.14 | 6280 | 5.47 | 9.23 | 165.9 |
| Chechyoi t | 3529 | 7.23 | 10975 | 7.23 | 3450 | 6.88 | 8401 | 7.32 | -2.23 | -23.45 |
| Seraj | 2791 | 5.72 | 8679 | 5.72 | 2951 | 5.89 | 7186 | 6.26 | 5.73 | -17.20 |
| Sunder Nagar | 6284 | 12.88 | 19542 | 12.88 | 5371 | 10.72 | 13080 | 11.40 | -14.52 | -33.06 |
| Karsog | 6389 | 13.10 | 19869 | 13.10 | 5879 | 11.73 | 14317 | 12.48 | -7.98 | -124.0 |
| Total | 48758 | 100.00 | 151630 | 100.00 | 50095 | 100.00 | 114686 | 100.00 | 2.74 | -24.36 |

Source: District Agriculture Office, Mandi

As far as paddy is concerned, at district level, though the area under paddy has shown a marginal increase of 2.33 per cent in 2005-06 over 2001-02 yet the production showed a huge decline of 12.59 per cent during these four years period. Except Seraj block where paddy registered positive and significant growth in both area and production, other blocks experienced negative growth in the production of paddy. The area under paddy increased in Balh (2.26%), Drang (2.26%), Chauntra (7.06 %) and Gopalpur (13.74%) (Table-7.2). This indicates that blocks having large area falling in low hills are concentrating more on cereals crops while blocks with high hills are shifting gradually towards fruits and vegetable crops.

Table 7.2: Block-wise area and production of paddy in Mandi district.

| Block | 2001-2002 | | | | 2005-2006 | | | | % change over 2001 | |
|--------------|--------------|---------------|--------------|---------------|--------------|---------------|--------------|---------------|--------------------|---------------|
| | Area (Ha) | % | Prod. (MT) | % | Area | % | Prod. (MT) | % | Area | Prod. |
| Sadar | 1411 | 7.13 | 2410 | 7.13 | 1383 | 6.83 | 1975 | 6.69 | -1.98 | 18.04 |
| Balh | 3058 | 15.47 | 5225 | 15.47 | 1383 | 15.46 | 1975 | 16.72 | 2.26 | -5.59 |
| Drang | 1219 | 6.16 | 2082 | 6.16 | 1247 | 6.16 | 1793 | 6.01 | 2.29 | -13.88 |
| Chauntra | 3894 | 19.70 | 6653 | 19.70 | 4169 | 20.61 | 5997 | 20.32 | 7.06 | -9.36 |
| Gopalpur | 4511 | 22.82 | 7707 | 22.82 | 5131 | 25.37 | 7380 | 25.01 | 13.74 | -4.24 |
| Dharampur | 1978 | 10.00 | 3379 | 10.00 | 1864 | 9.22 | 2681 | 9.08 | -5.76 | -20.65 |
| Chechyoit | 584 | 2.95 | 997 | 2.95 | 552 | 2.73 | 794 | 2.69 | -5.47 | -20.36 |
| Seraj | 62 | 0.31 | 106 | 0.31 | 89 | 0.44 | 128 | 0.43 | 43.54 | 20.75 |
| Sunder Nagar | 1623 | 8.21 | 2773 | 8.21 | 1391 | 6.88 | 2001 | 6.78 | -14.29 | -27.83 |
| Karsog | 1422 | 7.19 | 2429 | 7.19 | 1271 | 6.28 | 1828 | 6.19 | -10.61 | -24.74 |
| Total | 19762 | 100.00 | 33761 | 100.00 | 20224 | 100.00 | 29510 | 100.00 | 2.33 | -12.59 |

Source: District Agriculture Office, Mandi

Wheat is one of the most important cereal crop in the rabi season in Mandi district. It occupies largest area among all the crops in gross cropped area in almost all the blocks of the district. The Gopalpur, Sadar, Balh and Karsog are the among the most notable blocks which occupy relatively larger area under wheat, and production levels are also significant in these blocks. At district level wheat area increased by 3.21 per cent while production declined by 7.57 per cent during 2001-02 and 2005-06 period (Table-7.3). Except for Drang block, the production of wheat exhibited a declining trend in all the blocks of the district. The area increase again was quite significant in Drang block, it increased by margins

in Sadar, Chauntra, Dharampur, Sunder Nagar and Karsog blocks. Rest of the blocks showed a decline in the wheat acreage, particularly Chachyot and Balh block which experienced significant decline in the area during four years period.

Table 7.3: Block-wise area and production of wheat in Mandi district.

| Block | 2001-2002 | | | | 2005-2006 | | | | % change over year 2001-02 | |
|--------------|--------------|---------------|------------------|---------------|--------------|---------------|------------------|---------------|----------------------------|-----------------|
| | Area (Ha) | % | Prod. (MT) | % | Area (Ha) | % | Prod. (MT) | % | Area (Ha) | Prod. (Mt) |
| Sadar | 9419 | 14.62 | 19308 | 14.85 | 97.91 | 14.73 | 17913.53 | 14.70 | 3.95 | (-) 7.22 |
| Balh | 8435 | 13.09 | 17291.75 | 13.12 | 9453 | 14.22 | 17298.99 | 14.20 | (-) 12.07 | 0.04 |
| Drang | 4112 | 6.39 | 8430 | 6.40 | 5372 | 8.08 | 9852 | 8.09 | 30.64 | 16.87 |
| Chauntra | 5910 | 9.17 | 12116 | 9.19 | 6185 | 9.30 | 11344 | 9.31 | 4.65 | (-) 6.37 |
| Gopalpur | 11700 | 18.16 | 23985 | 18.20 | 11065 | 16.64 | 20248.95 | 16.62 | (-) 5.43 | (-) 15.58 |
| Dharampur | 44.62 | 6.93 | 9127 | 6.93 | 4693 | 7.06 | 8607 | 7.07 | 5.18 | (-) 5.70 |
| Chechyoit | 4031 | 6.26 | 8264 | 6.27 | 3238 | 4.87 | 5939 | 4.88 | (-) 19.67 | (-) 28.13 |
| Seraj | 1361 | 2.11 | 2534 | 1.92 | 1328 | 2.00 | 2423 | 1.99 | (-) 2.42 | (-) 4.38 |
| Sunder Nagar | 6629 | 10.29 | 13591 | 10.31 | 6861 | 10.32 | 12583 | 10.33 | 3.50 | (-) 7.42 |
| Karsog | 8360 | 12.98 | 17139 | 13.00 | 8502 | 12.79 | 15593 | 12.80 | 1.70 | (-) 9.02 |
| Total | 64419 | 100.00 | 131785.75 | 100.00 | 66488 | 100.00 | 121802.47 | 100.00 | 3.21 | (-) 7.57 |

Source: District Agricultural Office, Mandi

In case of ragi and millets, and pulses the area and production declined drastically in the district between 2002-03 to 2005-06. The declining trends in coarse cereals and pulses and increasing area share of maize, paddy, wheat is due partly to yield advantages created by green revolution technologies and food sufficiency concerns of people of the district. The rising per capita income, the urge of the people to consume superior cereals are also the important factors responsible for decline in the area under coarse cereals and increase in the area under maize, paddy and wheat in the district. The drastic decline in the share of all the pulse crops was due to lost comparative advantages and lack of technological break-through in this area, despite ample demand for pulses.

The analysis across the blocks indicated that among all the blocks, only Seraj and Chechyoit registered a significant increase in the area under ragi crop during the study period. In case of production, only one block that is Seraj, showed an increase of 37.30 per cent in

2005-06 over 2002-03 period. For all the millets, Drang and Gopalpur blocks exhibited positive trends both in area as well as production. Rest of blocks showed declining trends in area and production in the district.

Table 7.4: Block-wise area and production of ragi in Mandi District.

| Block | 2002-2003 | | | | 2005-2006 | | | | % change over year 2002-03 | |
|--------------|-----------|--------|------------|--------|-----------|--------|------------|--------|----------------------------|------------|
| | Area (Ha) | % | Prod. (Mt) | % | Area (Ha) | % | Prod. (MT) | % | Area (Ha) | Prod. (MT) |
| Sadar | 70 | 4.16 | 100 | 5.29 | 52 | 8.38 | 62.4 | 8.09 | (-) 25.71 | (-) 37.60 |
| Balh | 60 | 3.57 | 90 | 4.76 | 41 | 6.61 | 49.2 | 6.38 | (-) 31.66 | (-) 45.30 |
| Drang | 500 | 29.76 | 480 | 25.39 | 72 | 11.61 | 87.00 | 11.28 | (-) 85.60 | (-) 81.80 |
| Chauotra | 500 | 29.76 | 480 | 25.39 | 40 | 6.45 | 48.00 | 6.22 | (-) 92.00 | (-) 90.00 |
| Gopalpur | 110 | 6.54 | 130 | 6.87 | 52 | 8.38 | 62.40 | 8.09 | (-) 52.70 | (-) 52.00 |
| Dharampur | 180 | 10.71 | 190 | 10.05 | 80 | 12.90 | 96.00 | 12.45 | (-) 55.55 | (-) 49.40 |
| Chechoit | 30 | 1.78 | 90 | 4.76 | 52 | 8.38 | 62.40 | 8.09 | 73.33 | (-) 30.60 |
| Seraj | 40 | 2.38 | 90 | 4.76 | 103 | 16.61 | 123.6 | 16.03 | 157.5 | 37.30 |
| Sunder Nagar | 110 | 6.54 | 130 | 6.87 | 58 | 9.35 | 96.00 | 12.45 | (-) 47.27 | (-) 26.10 |
| Karsog | 80 | 4.76 | 110 | 5.82 | 70 | 11.29 | 84.00 | 10.89 | (-) 12.50 | (-) 23.60 |
| Total | 1680 | 100.00 | 1890 | 100.00 | 620 | 100.00 | 771.0 | 100.00 | (-) 172.60 | (-) 399.10 |

Source: District Agricultural Office, Mandi

Table 7.5: Block-wise area and production of millets in Mandi district.

| Block | 2002-2003 | | | | 2005-2006 | | | | % change | |
|--------------|-----------|--------|------------|--------|-----------|--------|------------|--------|-----------|------------|
| | Area (Ha) | % | Prod. (MT) | % | Area (Ha) | % | Prod. (MT) | % | Area (Ha) | Prod. (MT) |
| Sadar | 40 | 5.26 | 28 | 5.18 | 30 | 10.00 | 32.49 | 10.83 | -25.00 | 16.03 |
| Balh | 20 | 2.63 | 14 | 2.59 | 16 | 5.33 | 17.32 | 5.77 | -20.00 | 23.71 |
| Drang | 30 | 3.94 | 21 | 3.88 | 40 | 13.33 | 37.32 | 12.44 | 33.33 | 77.71 |
| Chauotra | 30 | 3.94 | 21 | 3.88 | 14 | 4.66 | 15.15 | 5.05 | -53.33 | (-) 27.85 |
| Gopalpur | 30 | 3.94 | 21 | 3.88 | 32 | 10.66 | 28.63 | 9.54 | 6.66 | 36.33 |
| Dharampur | 50 | 6.57 | 35 | 6.48 | 45 | 15.00 | 42.73 | 14.24 | -10.00 | 22.08 |
| Chechoit | 100 | 13.15 | 78 | 14.44 | 25 | 8.33 | 27.07 | 9.02 | -75.00 | (-) 65.29 |
| Seraj | 190 | 25.00 | 133 | 24.62 | 45 | 15.00 | 47.87 | 15.95 | -76.31 | (-) 64.00 |
| Sunder Nagar | 100 | 13.15 | 70 | 12.96 | 25 | 8.33 | 27.27 | 9.02 | -75.00 | (-) 61.04 |
| Karsog | 170 | 22.36 | 119 | 22.03 | 28 | 9.33 | 24.32 | 8.10 | -83.52 | (-) 79.56 |
| Total blocks | 760 | 100.00 | 540 | 100.00 | 300 | 100.00 | 299.97 | 100.00 | (-) 60.53 | (-) 44.45 |

Source: District Agriculture Office, Mandi

The change in the area and production of Kharif pulses was found positive only in Dharampur block while other blocks witnessed declining trends both in acreage and production. As far as rabi pulses are concerned, Chauntra, Gopalpur and Dharampur blocks witnessed rise in both area and production. In the other blocks the area as well as production declined both in absolute terms and in percentage terms.

Table 7.6: Block-wise area and production of pulses (kharif) in Mandi district.

| Block | 2002-2003 | | | | 2005-2006 | | | | % change over 2002-03 | |
|--------------|-----------|--------|------------|--------|-----------|--------|------------|--------|-----------------------|-----------|
| | Area (Ha) | % | Prod. (MT) | % | Area (Ha) | % | Prod. (MT) | % | Area | Prod. |
| Sadar | 580 | 13.18 | 516 | 13.09 | 380 | 11.79 | 289 | 10.59 | (-) 34.48 | (-) 43.99 |
| Balh | 520 | 11.81 | 462 | 11.72 | 325 | 10.08 | 284.7 | 10.44 | (-) 37.5 | (-) 38.37 |
| Drang | 450 | 10.22 | 429 | 10.88 | 300 | 9.30 | 262.8 | 9.63 | (-) 33.33 | (-) 38.74 |
| Chauntra | 300 | 6.81 | 267 | 6.77 | 300 | 9.30 | 262.8 | 9.63 | 0.00 | (-) 15.73 |
| Gopalpur | 370 | 8.40 | 329 | 8.35 | 320 | 9.92 | 280.3 | 10.27 | (-) 2.73 | (-) 14.80 |
| Dharampur | 200 | 4.54 | 178 | 4.51 | 310 | 9.61 | 271.5 | 9.95 | 55.00 | 52.52 |
| Chechoit | 410 | 9.31 | 364 | 9.23 | 290 | 8.99 | 262.8 | 9.63 | (-) 29.26 | (-) 27.80 |
| Seraj | 410 | 9.31 | 364 | 9.23 | 250 | 7.75 | 254 | 9.31 | (-) 39.02 | (-) 30.21 |
| Sunder Nagar | 510 | 11.59 | 453 | 11.49 | 380 | 11.79 | 289 | 10.59 | (-) 25.49 | (-) 36.20 |
| Karsog | 650 | 14.77 | 578 | 14.67 | 368 | 11.41 | 269.8 | 9.89 | (-) 43.38 | (-) 53.32 |
| Total | 4400 | 100.00 | 3940 | 100.00 | 3223 | 100.00 | 2726.7 | 100.00 | (-) 26.75 | (-) 30.79 |

Source: District Agriculture Office, Mandi

Table 7.7: Block-wise area and production of pulses (rabi) in Mandi district.

| Block | 2002-2003 | | | | 2005-2006 | | | | % change over year 2002-03 | |
|--------------|-----------|-------|------------|--------|-----------|--------|------------|--------|----------------------------|------------|
| | Area (Ha) | % | Prod. (MT) | % | Area (Ha) | % | Prod. (MT) | % | Area (Ha) | Prod. (MT) |
| Sadar | 160 | 15.09 | 200 | 16.26 | 89 | 11.86 | 113 | 11.89 | (-) 44.37 | (-) 43.50 |
| Balh | 140 | 13.20 | 170 | 13.82 | 86 | 11.46 | 109 | 11.47 | (-) 38.57 | (-) 35.88 |
| Drang | 90 | 8.49 | 40 | 3.25 | 75 | 10.00 | 95 | 10.00 | (-) 16.66 | 137.50 |
| Chauntra | 70 | 6.60 | 80 | 6.50 | 75 | 10.00 | 95 | 10.00 | 7.14 | 18.75 |
| Gopalpur | 60 | 5.66 | 70 | 5.69 | 80 | 10.66 | 101 | 10.63 | 33.33 | 44.28 |
| Dharampur | 60 | 5.66 | 70 | 5.69 | 75 | 10.00 | 95 | 10.00 | 25.00 | 35.71 |
| Chechoit | 160 | 15.09 | 200 | 16.26 | 75 | 10.00 | 95 | 10.00 | (-) 53.12 | (-) 52.50 |
| Seraj | 130 | 12.26 | 160 | 13.00 | 35 | 4.66 | 45 | 4.73 | (-) 73.07 | (-) 71.87 |
| Sunder Nagar | 120 | 11.32 | 160 | 13.00 | 85 | 11.33 | 107 | 11.26 | (-) 29.16 | (-) 33.12 |
| Karsog | 70 | 6.60 | 80 | 6.50 | 75 | 10.00 | 95 | 10.00 | 7.14 | 18.75 |
| Total | 1060 | 100.0 | 1230 | 100.00 | 750 | 100.00 | 950 | 100.00 | (-) 29.24 | (-) 22.75 |

Source: District Agriculture Office, Mandi

Potato also happens to be one of the important crops of Mandi district. The area and production of potato indicated drastic decline by 12.25 and 6.23 per cent respectively between 2002-03 and 2005-06 period in the district as a whole. Seraj, Drang, Chechyot, Sadar and Sunder Nagar were noted to be major potato producing blocks. The analysis across blocks could not be carried out for reasons of non availability of full block-wise data in this regard.

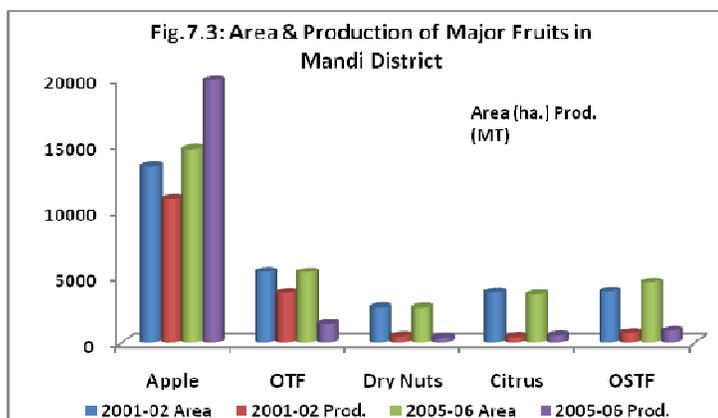
Table 7.8: Block-wise area and production of Ppotato in Mandi district.

| Block | 2002-2003 | | | | 2005-2006 | | | | % change over year 2002-03 | |
|--------------|-----------|--------|------------|--------|-----------|--------|------------|--------|----------------------------|-------|
| | Area (Ha) | % | Prod. (MT) | % | Area (Ha) | % | Prod. (MT) | % | Area | Prod. |
| Sadar | 130 | 8.38 | 1340 | 8.37 | 180 | 13.23 | 1955.2 | 13.03 | 38.46 | 45.91 |
| Balh | 110 | 7.09 | 1130 | 7.06 | NA | NA | NA | -- | -- | -- |
| Drang | 310 | 20.00 | 3190 | 19.93 | 385 | 28.30 | 4188.8 | 27.91 | 24.19 | 31.31 |
| Chauntra | 80 | 5.16 | 820 | 5.12 | -- | -- | -- | -- | -- | -- |
| Gopalpur | 70 | 4.51 | 720 | 4.50 | -- | -- | -- | -- | -- | -- |
| Dharampur | 50 | 3.22 | 510 | 3.18 | -- | -- | -- | -- | -- | -- |
| Chechyot | 140 | 9.03 | 1440 | 9.00 | 210 | 15.44 | 2488 | 16.58 | 50.00 | 72.77 |
| Seraj | 340 | 21.93 | 3560 | 22.25 | 405 | 29.77 | 4412.8 | 29.41 | 19.11 | 23.95 |
| Sunder Nagar | 140 | 9.03 | 1440 | 9.00 | 180 | 13.23 | 1958.8 | 6.66 | 28.57 | 36.02 |
| Karsog | 180 | 11.61 | 1850 | 11.56 | -- | -- | -- | -- | -- | -- |
| Total | 1550 | 100.00 | 16000 | 100.00 | 1360 | 100.00 | 15003.60 | 100.00 | (-) 12.25 | -6.23 |

Source: District Agriculture Office, Mandi

7.2 Horticulture

Mandi district provides congenial conditions for the cultivation of high value horticultural crop. Within horticulture sector, fruits and vegetables have recorded a significant shift both in area as well as production in the district. Among the entire fruits, apple occupy a place of pride in the horticultural scenario of the district.



Area under apple increased from 13373 hectares in 2001-02 to 14710 hectares in 2005-06. The

production of apple increased by 82.50 per cent in 2005-06 over the base year 2001-02 in the district (Table 7.9 and Fig.-7.3). Karsog, Sadar, Seraj and Chachyot were the most prominent blocks as far as apple cultivation is concerned. Seraj block experienced the maximum increase (20.21%) in the area, followed by Drang (16.66%), Karsog (12.62%) during 2001-02 to 2005-06 period. The other blocks such as Sadar, Chachyot and Sunder Nagar registered marginal increase in the acreage under apple crop. The increase in production was highest in Seraj block (225.10%) followed by Sadar (155.40%), (Chachyot (139.30%). The other apple growing blocks faced decline in apple production during four year study period i.e. 2001-02 to 2005-06.

Table 7.9: Block-wise area and production of apple in Mandi district.

| Blocks | 2001-2002 | | | | 2005-2006 | | | | % change over year 2001-02 | |
|--------------|-----------|--------|------------|--------|-----------|--------|------------|--------|----------------------------|-----------|
| | Area (Ha) | % | Prod. (MT) | % | Area (Ha) | % | Prod. (MT) | % | Area | Prod. |
| Sadar | 3285 | 24.56 | 2200 | 20.18 | 3357 | 22.82 | 5619 | 28.23 | 2.19 | 155.4 |
| Balh | -- | -- | -- | -- | 17 | 0.11 | 27 | 0.13 | -- | -- |
| Drang | 192 | 1.43 | 60 | 0.55 | 224 | 1.52 | 30 | 0.15 | 16.66 | (-) 50.00 |
| Chauntra | -- | -- | -- | -- | 28 | 0.19 | 4 | 0.02 | -- | -- |
| Gopalpur | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Dharampur | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Chechyot | 1931 | 14.43 | 1504 | 30.79 | 1983 | 13.48 | 3600 | 18.09 | 2.69 | 139.3 |
| Seraj | 3027 | 22.63 | 2436 | 22.34 | 3639 | 24.73 | 7920 | 39.79 | 20.21 | 225.1 |
| Sunder Nagar | 842 | 6.29 | 450 | 4.13 | 849 | 5.77 | 300 | 15.78 | 0.83 | (-) 33.33 |
| Karsog | 4096 | 30.62 | 4254 | 39.01 | 4613 | 31.35 | 2400 | 12.06 | 12.62 | (-) 43.58 |
| Total | 13373 | 100.00 | 10904 | 100.00 | 14710 | 100.00 | 19900 | 100.00 | 10.00 | 82.50 |

Source: District Horticulture Office, Mandi

The temperate stone fruits viz; peach, plum, apricot, pear seem to be losing their relevance in the horticultural scenario of the district. This is evidenced from the fact that the area under these crops have declined from 5374 hectares in 2001-02 to 5337 hectares in 2005-06 in the district as a whole. The production of these fruits also witnessed a significant decline of

62.42 per cent in the district for the same period. The low profitability may be the one of the reasons for this type of trends. During the study period, the production level increased by 92.18 per cent in Karsog block, 66.81 per cent in Chachyot block. The other blocks exhibited negative growth in the production of other temperate fruits in the study district (Table-7.10).

Table 7.10: Block-wise area and production of other temperate fruits in Mandi district.

| Block | 2001-2002 | | | | 2005-2006 | | | | % change over 2001-02 | |
|--------------|-----------|-------|------------|-------|-----------|-------|------------|-------|-----------------------|-----------|
| | Area (Ha) | % | Prod. (MT) | % | Area (Ha) | % | Prod. (MT) | % | Area | Prod. |
| Sadar | 14.38 | 26.76 | 1380 | 36.46 | 1536 | 28.78 | 285 | 20.04 | 6.81 | (-) 79.06 |
| Balh | 710 | 13.21 | 680 | 17.97 | 703 | 13.17 | 278 | 19.54 | 0.98 | (-) 59.11 |
| Drang | 364 | 6.77 | 405 | 10.70 | 360 | 6.74 | 48 | 3.37 | (-) 1.09 | (-) 88.14 |
| Chauntra | 385 | 7.16 | 220 | 5.81 | 359 | 6.72 | 59 | 4.14 | (-) 6.75 | (-) 73.18 |
| Gopalpur | 430 | 8.00 | 325 | 8.58 | 413 | 7.73 | 63 | 4.43 | (-) 395 | (-) 80.61 |
| Dharampur | 385 | 7.16 | 220 | 5.81 | 359 | 6.72 | 108 | 7.59 | (-) 6.75 | (-) 50.19 |
| Chechyoit | 687 | 12.78 | 220 | 5.81 | 612 | 11.46 | 367 | 25.18 | (-) 10.19 | 66.81 |
| Seraj | 233 | 4.34 | 62 | 1.63 | 233 | 4.36 | 51 | 3.58 | 0.00 | (-) 17.74 |
| Sunder Nagar | 417 | 7.75 | 208 | 5.49 | 419 | 7.85 | 40 | 2.81 | 0.47 | (-) 80.76 |
| Karsog | 325 | 6.04 | 64 | 1.69 | 343 | 6.42 | 1.23 | 8.64 | 5.53 | 92.18 |
| Total | 5374 | 100.0 | 3784 | 100.0 | 5337 | 100.0 | 1422 | 100.0 | (-) 0.68 | (-) 62.42 |

Source: District Horticulture Office, Mandi

The area and production of dry nuts decreased by 0.63 and 21.30 per cent respectively in the district between 2001-02 and 2005-06 period. Karsog, Chachyot and Chauntra blocks recorded a marginal increase in the production while in other blocks the production level declined considerably. Except in Drang, Seraj, Sunder Nagar blocks, rest of the blocks indicated a marginal increase in the acreage under nuts (Table-7.11).

The diversity of agro-climatic conditions offer niche advantages of producing wide variety of tropical, sub-tropical, temperate fruits and nuts in the district. The lower hills and valley areas of the district are suitable for growing a range of sub-tropical fruits, mid hills are good for temperate stone fruits and Kiwi, high hills good for growing host of temperate fruits and nuts.

Table 7.11: Block-wise area and production of dry nuts in Mandi district.

| Block | 2001-2002 | | | | 2005-2006 | | | | % change over 2001-02 | |
|---------------------|-------------|---------------|------------|---------------|-------------|---------------|------------|---------------|-----------------------|------------------|
| | Area (Ha) | % | Prod. (MT) | % | Area (Ha) | % | Prod. (MT) | % | Area | Prod. |
| Sadar | 632 | 23.57 | 92 | 19.24 | 635 | 23.83 | 38 | 10.10 | 0.47 | (-) 58.69 |
| Balh | 191 | 7.12 | 38 | 7.94 | 192 | 7.20 | 7 | 1.86 | 0.52 | (-) 81.57 |
| Drang | 256 | 9.54 | 64 | 13.38 | 251 | 9.42 | 5 | 1.32 | (-) 1.95 | (-) 92.18 |
| Chauntra | 107 | 3.99 | 20 | 4.18 | 113 | 4.24 | 21 | 5.58 | 5.60 | 5.00 |
| Gopalpur | 127 | 4.73 | 22 | 4.60 | 132 | 4.95 | 5 | 1.32 | 3.93 | (-) 77.27 |
| Dharampur | 107 | 3.99 | 20 | 4.18 | 113 | 4.24 | 5 | 1.32 | 5.58 | (-) 75.00 |
| Chechyoit | 127 | 4.73 | 45 | 9.41 | 147 | 5.51 | 80 | 21.27 | 15.74 | 77.77 |
| Seraj | 257 | 9.58 | 50 | 10.46 | 254 | 9.53 | 21 | 5.58 | (-) 1.16 | (-) 58.00 |
| Sunder Nagar | 281 | 10.48 | 28 | 5.85 | 188 | 7.05 | 16 | 4.25 | (-) 33.09 | (-) 42.85 |
| Karsog | 596 | 22.23 | 99 | 20.71 | 639 | 23.98 | 178 | 47.34 | 7.21 | 79.79 |
| Total blocks | 2681 | 100.00 | 478 | 100.00 | 2664 | 100.00 | 376 | 100.00 | (-) 0.63 | (-) 21.30 |

Source: District Horticulture Office, Mandi

The cultivation of citrus fruits are quite popular in Mandi district. During 2005-06 the area under citrus fruits was 3647 hectare with estimated production of 527 metric tonnes. The production showed an increase of 23.42 per cent in 2005-06 over the year 2001-02 for the district. The area under citrus fruits recorded a decline of 4.60 per cent in the district during this

study period. The area showed a declining trend in almost all the blocks of the district during aforesaid period. Except Drang and Karsog blocks, the production of citrus fruits witnessed an impressive increase (Table-7.12). This may be attributed to the improvement in the productivity level as a result of improved packages of practices.

Table 7.12: Block-wise area and production of citrus fruits in Mandi district.

| Block | 2001-2002 | | | | 2005-2006 | | | | % change productivity | |
|--------------|-------------|---------------|------------|---------------|-------------|---------------|------------|---------------|-----------------------|--------------|
| | Area (Ha) | % | Prod. (MT) | % | Area (Ha) | % | Prod. (MT) | % | Area | Prod. |
| Sadar | 578 | 15.11 | 71 | 16.6 | 469 | 12.85 | 75 | 14.23 | (-) 18.85 | 5.63 |
| Balh | 422 | 11.03 | 33 | 7.72 | 413 | 11.32 | 87 | 16.50 | (-) 2.13 | 16.36 |
| Drang | 445 | 11.64 | 72 | 16.86 | 443 | 4.14 | 35 | 6.64 | (-) 0.44 | (-) 51.38 |
| Chauntra | 552 | 14.43 | 58 | 13.58 | 532 | 14.58 | 107 | 20.30 | (-) 3.62 | 84.48 |
| Gopalpur | 440 | 11.50 | 50 | 11.70 | 428 | 11.73 | 72 | 13.66 | (-) 2.72 | 30.90 |
| Dharampur | 552 | 14.43 | 58 | 13.58 | 532 | 14.58 | 72 | 13.66 | (-) 3.62 | 24.13 |
| Chechyot | -- | -- | -- | -- | 21 | 0.57 | 9 | 1.70 | -- | 0.00 |
| Seraj | 114 | 2.98 | -- | -- | 109 | 2.98 | 0 | -- | (-) 4.38 | 0.00 |
| Sunder Nagar | 432 | 11.30 | 62 | 14.51 | 428 | 11.73 | 65 | 12.33 | (-) 0.92 | 4.83 |
| Karsog | 288 | 7.53 | 23 | 5.38 | 272 | 7.45 | 5 | 0.94 | (-) 5.55 | (-) 78.26 |
| Total | 3823 | 100.00 | 427 | 100.00 | 3647 | 100.00 | 527 | 100.00 | (-) 4.60 | 23.42 |

Source: District Horticulture Office, Mandi.

The other sub-tropical fruits such as pomegranate recorded an impressive growth of 17.91 and 20.24 per cent in areas and production respectively during 2001-02 to 2005-06 in the Mandi district as a whole. There was a significant increase in the area under these fruits particularly in Chachyot, Sunder Nagar, Sadar, Balh and Drang blocks. Production also experienced significant increase in almost all the blocks except Sundarnagar and Karsog blocks (Table-7.13).

Table 7.13: Block-wise area and production of other sub-tropical fruits (OSTF) in Mandi district.

| Block | 2001-2002 | | | | 2005-2006 | | | | % change over year 2001-02 | |
|--------------|-------------|---------------|------------|---------------|-------------|---------------|------------|---------------|----------------------------|--------------|
| | Area (Ha) | % | Prod (MT) | % | Area (Ha) | % | Prod (MT) | % | Area | Prod. |
| Sadar | 642 | 16.52 | 88 | 11.79 | 781 | 17.04 | 125 | 13.93 | 21.65 | 42.04 |
| Balh | 392 | 10.09 | 48 | 6.43 | 451 | 9.84 | 95 | 10.59 | 15.05 | 97.91 |
| Drang | 472 | 12.14 | 70 | 9.38 | 542 | 118.3 | 105 | 11.70 | 14.83 | 50.00 |
| Chauntra | 552 | 14.20 | 58 | 7.77 | 531 | 11.59 | 107 | 11.92 | (-) 3.80 | 84.48 |
| Gopalpur | 422 | 10.86 | 77 | 10.32 | 466 | 10.17 | 91 | 10.14 | 10.42 | 18.18 |
| Dharampur | 551 | 14.20 | 58 | 7.77 | 532 | 11.61 | 72 | 8.02 | (-) 3.62 | 24.13 |
| Chechoit | 64 | 1.64 | 54 | 7.23 | 401 | 8.75 | 160 | 17.83 | 526.56 | 196.29 |
| Seraj | 10 | 0.25 | -- | -- | 10 | 0.21 | 7 | 0.78 | -- | -- |
| Sunder Nagar | 491 | 12.63 | 270 | 36.19 | 595 | 12.98 | 130 | 14.49 | 21.18 | (-) 51.85 |
| Karsog | 288 | 7.41 | 23 | 3.08 | 272 | 5.93 | 5 | 0.55 | (-) 5.55 | (-) 78.26 |
| Total | 3885 | 100.00 | 746 | 100.00 | 4581 | 100.00 | 897 | 100.00 | 17.91 | 20.24 |

Source: District Horticulture Office, Mandi

7.3 Vegetables

The vegetable sector has recorded a significant shift in area and output in Mandi district. Area under total vegetables increased from 2769 ha in 1985-86 to 4874 ha in 2003-04 marking a record increase of 76.02 per cent (Table-7.14) in the district. However, in comparison to the state where percentage increase in total vegetable area was recorded to 105.50 per cent, the growth in area under vegetable crops in the district was relatively lesser. The table indicates that among all vegetables grown in the district, tomato has emerged as fastest economic activity, experiencing 1823.07 per cent increase during the period of 18 years; the next in importance is cauliflower (156.00%) followed by other vegetables (50.04%), Capsicum (28%), Peas (26.31%). The trends of change were quite similar to the ones followed by state as a whole, in almost all the crops, except in Beans and Cabbage in which case the decline was observed in their respective areas in the district.

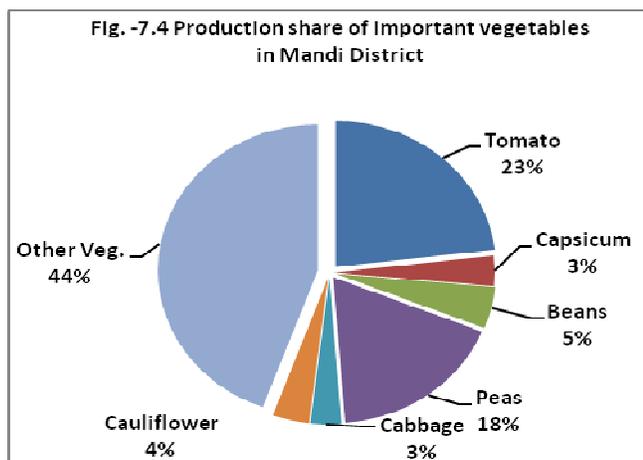
Table 7.14: Area under different important vegetables in Mandi district and Himachal Pradesh

(Area in ha)

| Crops | Mandi district | | | Himachal Pradesh | | |
|-------------------------|----------------|-------------|--------------|------------------|--------------|---------------|
| | 1985-86 | 2003-04 | % change | 1985-86 | 2003-04 | % change |
| Tomato | 65 | 1250 | 1823.07 | 1850 | 9813 | 430.43 |
| Capsicum | 125 | 160 | 28.00 | 950 | 1642 | 72.84 |
| Beans | 270 | 260 | (-) 3.70 | 1790 | 2444 | 36.53 |
| Peas | 950 | 1200 | 26.31 | 3567.8 | 5915 | 150.02 |
| Cabbage | 120 | 100 | (-)16.66 | 950 | 2790 | 193.68 |
| Cauliflower | 50 | 128 | 156.00 | 468 | 1648 | 252.13 |
| Other vegetable | 1189 | 1784 | 50.04 | 9621 | 11948 | 24.18 |
| Total vegetables | 2769 | 4874 | 76.02 | 21544 | 44274 | 105.50 |

Source: State Department of Agriculture, Shimla.

The estimates of production of important vegetables during 1985-86 and 2003-04 period and the percent changes have been presented in Table 7.15. The table shows that the production of total vegetables recorded a marked increase of 73.32 per cent between 1985-86 and 2003-04 period in the district as a whole.. In comparison to the state figures, the per cent increase in the production of total vegetables in the district lagged far behind indicating thereby enough scope of expansion of vegetable crops in the district. Among all the vegetables grown in the district, tomato registered the maximum increase in production followed by cauliflower, capsicum, other vegetables, peas and beans during the study period. Cabbage recorded a decrease of 27.54 per cent in the district.



Production and productivity effects of area shifts were evaluated by considering the compound growth rates of output, area and yield of vegetables for 1995-96 to 2002-03 period in the study district. Relative contribution of area and yield to overall output growth was also

worked out through decomposition technique. The results of the same are presented in Table-7.16. During the period 1995-96 to 2003-04, the output growth of almost all the vegetables were found positive except for Beans, Peas, Cucurbits and other vegetables. The output growth was positive and significant for tomato, cauliflower and onion/ garlic only, while growth rates for other were non-significant.

Table 7.15: Production of important vegetables in Mandi district and Himachal Pradesh.

(Production in MT)

| Crops | Mandi district | | | Himachal Pradesh | | |
|-------------------------|----------------|----------|-----------|------------------|-----------|----------|
| | 1985-86 | 2003-04 | % change | 1985-86 | 2003-04 | % change |
| Tomato | 1397.5 | 15000 | 973.35 | 39774.50 | 246033.00 | 1130.24 |
| Capsicum | 1125.00 | 2160.00 | 92.00 | 8550.00 | 17852.00 | 108.80 |
| Beans | 2430.00 | 2990.00 | 23.05 | 16110.00 | 27202.00 | 68.85 |
| Peas | 8360.00 | 11500.00 | 37.56 | 47236.60 | 154063.00 | 226.15 |
| Cabbage | 2760.00 | 2000.00 | (-) 27.54 | 21850.00 | 71134.00 | 155.42 |
| Cauliflower | 860.00 | 2400.00 | 179.07 | 6811.20 | 29328.00 | 330.58 |
| Other vegetable | 20476.50 | 28786.00 | 40.58 | 132156.80 | 185776.00 | 40.57 |
| Total vegetables | 37409.00 | 64836.00 | 73.32 | 258712.80 | 731359 | 182.69 |

Source: State Department of Agriculture, Shimla.

In general, the area growth is also showing a steady rise for almost, all the vegetable crops, for which production growth indicated positive growth. The growth in area was positive and significant for capsicum and onion/ garlic crops in the district during 1995-96 to 2003-04 period. During this period, the district as a whole, exhibited a sluggish growth in productivity of almost all the vegetables except brinjal a commercially non-significant crop. Total vegetables recorded negative growth in productivity for the whole district. The result of decomposition model, revealed that, in majority of vegetable crops, barring the case of capsicum, cauliflower, brinjal, area effect is turning out to be stronger than yield effect implying thereby that, the gains in vegetable outputs has been mainly due to extensive cultivation

practices. The situation calls for vigorous use of knowledge and skill based farming of vegetable crops to realize higher productivity in respect of these crops in the district.

Table 7.16: Temporal changes in sources of growth of main vegetable crops and crop groups in Mandi district (1995-96 to 2003-04)

| Crops | Area | Production | Yield | Yield effect | Area effect |
|---------------------------|-------------|-------------|----------------|-----------------|---------------|
| Tomato | 35.60 | 23.70* | (-)8.80 | -118.40 | 218.40 |
| Capsicum | 2.60* | 8.70 | 6.00 | 72.29 | 27.71 |
| Beans | (-) 2.24 | (-) 0.33 | 1.96 | 3494.00 | (-)3594.00 |
| Peas | (-) 2.30 | (-) 3.38 | (-) 9.00* | (-) 9.46 | (-) 90.54 |
| Cabbage | 9.00 | 7.90 | (-) 1.00 | (-) 60.39 | 160.39 |
| Cauliflower | 14.50 | 15.80* | 1.10 | 1.59 | 98.41 |
| Onion/ Garlic | 21.32* | 18.18* | (-)2.60 | (-)41.50 | 141.50 |
| Cucurbits | 2.10 | (-)1.70 | (-)3.80 | (-)107.03 | 7.03 |
| Radish/ Carrot/ Turnip | 3.60 | 1.80 | (-)1.80 | (-)203.92 | 103.92 |
| Others | 8.90 | 29.60 | 18.90 | (-)7.12 | 107.12 |
| Brinjal | 2.00 | 4.10 | 2.00* | 63.06 | 36.94 |
| Potato | 5.00 | 7.00 | 1.80 | (-)0.19 | 100.19 |
| Other vegetables | (-)11.20* | (-)9.30* | 2.10 | 77.08 | (-)177.08 |
| Total vegetables | 5.30 | 4.60 | (-)0.80 | (-)25.83 | 125.83 |

* Significant at 5% level of significance.

Source: Sharma, LR and Negi, YS (2005). Approaches for Marketing and Crop Diversification of Commercial Vegetables in Himachal Pradesh

Summary

All developmental efforts are aimed at achieving the ultimate attainable welfare for the people. The concept of human development denotes both the process of widening people's choices and the level of their achieved well being. Availability and equitable distribution of different facilities, which ultimately lead to human development, like health and hygiene facilities, availability of educational opportunities and required infrastructure, availability of other development facilitating infrastructural facilities, etc. form the basis of measurement of human development. A composite measure of welfare commonly in use for measuring the level of development is the human development index (HDI). In the 1990s, Professor Mahbub-ul-Haq and Professor Amartya Sen greatly influenced the development debate and cautioned against the growth which is jobless, rootless and ruthless.

The focus of the human development analysis is on the equitable distribution of development benefits for the overall increase in the welfare of the society rather than on a few segments of the society. The HDI as a composite indicator of the human development serves an important purpose of being a barometer of the socio-economic growth of the society in a desired direction. The need for and the importance of such exercises at the micro planning unit levels gain importance for identifying the development priorities of these basic planning units. Community Development Blocks (generally referred to as Blocks) are considered as the relevant basic development units at a district level. Therefore, the importance of the Block level analysis for the District Human Development Report can not be overemphasized.

Geographically, Mandi district accounts about 7.10 per cent of the total geographical area of the state and is predominantly rural. Of the total geographical area of 3950 sq. km, rural area comprises of 99.33 per cent. The development of the rural areas thus is important for the development of the district. There are only 5 towns in the district and out of a total of 3338 villages, 85 per cent are habitated. Of the 10 Community Development Blocks, Karsog is the largest (518 habitated villages) and Mandi Sadar the second largest block. The village level institutions Panchayats are now playing an

important role in rural development. There are 473 panchayats and 2877 wards in the district, with a total population of 8,40,362. The Sadar block has the highest number of 61 panchayats, followed by Karsog (60), Balh (51), Sunder Nagar and Dharampur (49) block.

Majority of the population of the district are Hindus (98.20%), followed by Muslims (0.92%), Sikhs (0.53%) and Bodhs (0.32%). Of the total population of the district, more than 93 per cent reside in the rural areas, with an average population 251 per inhabited village. This distribution of the population has repercussions for the development planning and implementation in the district. The population density works out to be 214 for the rural and 2263 persons per square kilometer for urban areas, with the average population density 228 for the district as a whole. Block wise analysis in this regard reveals that Balh block ranks the highest with the population density of 455, followed by Gopalpur and Chauntra with the corresponding figure of 387 and 279 respectively.

The population make-up of the district during the last ten year period (1991-2001), showed that the female population increased by about 21 per cent in Mandi Sadar block followed by Seraj (20.34%), Chachyot (19.62%) and Karsog (18.88%). The scheduled caste and scheduled tribe population in the district comprised of 28.98 and 1.17 per cent respectively. Balh block had the largest scheduled caste population (17.30%) among all the blocks in the district. The scheduled tribe population has shown a positive growth in all the blocks, except Chauntra and Karsog where this population declined by 10.86 and 8.25 per cent, respectively during this period. Women form almost half of population and contribute equally, if not more, towards the economic growth. For long, women remained marginalized in our society and thus it is heartening to note that the recent efforts at the planning level and the improving economic status of the people are changing this picture for good. One of the indicators used to assess society's treatment of women is the population sex ratio. Sex ratio in the district decreased from 1013 in 1991 to 1012 in 2001, indicating thereby a marginal decrease of 0.09 percent. During 2001, the number of females per thousand of males varied from lowest of 933 in Balh to highest of 1146 in Chauntra block, and the sex ratio improved slightly in Sadar, Drang, Chachyot, Sunder Nagar, Karsog and Seraj blocks. Interestingly, the number of females per thousand of males remained less than 900 for all the urban areas taken together. This is assuring that barring the case of

Jogindernagar (Nagar Parishad), almost all the urban areas experienced a slight increase in number of females over the males.

Education is an all empowering resource. It creates opportunities for the income and employment generation. An educated person can better comprehend the intricacies of real life and chart a suitable path for her/himself. In this regard, literacy is an important indicator of advancement of human resource. In terms of literacy, Mandi district is reasonably well placed with the literacy percentage 75.24 per cent as against 76.50 per cent for the state as a whole. The female literacy rate for the district is 64.82 per cent in contrast to 85.94 per cent for the males. Because of the relatively better educational facilities in urban areas, the literacy among the urban people is high at 90.48 per cent, compared to the rural literacy of 74.08 per cent; implying thereby the need for extending educational facilities, like well equipped schools and provision of adequate number of teachers in the schools. A significant variation was observed in the total literacy among the blocks and it was found highest (79.98%) in Gopalpur block and the lowest (69.13%) in Drang block. Among women, the highest literacy was again found in Gopalpur block (71.99%) and the lowest in Balh block (45.92%). Adult literacy is one of the important parameters of computing the educational attainment index, along with the combined enrolment ratio index. The adult literacy rate for males was found to be 80.65 per cent and for adult females only 53.36 per cent for the district as a whole. The block-wise analysis of adult literacy rate indicated a wide variation among the blocks.

The district, as on 2005, had 2471 schools; of which 1926 were Primary, 672 Middle and 307 were imparting education upto High/ Senior Secondary level. Balh block with 319 schools, followed by Karsog (291), Drang (273), Dharampur and Sunder Nagar (each with 259 schools) are ahead of other blocks in this regard. During the period of 2001-05, there has been an increase of 1.3 per cent in the number of government run primary schools. The maximum increase was noted in Seraj block followed by Sadar, Karsog, Gopalpur and Dharampur. Similarly, the number of colleges in the district increased from 14 in 2001 to 18 in 2005, although there seems to be the need for more colleges to address the issue of regional disparities in this regard across blocks.

Along with the number of schools, the total number of enrolment of eligible students serves as an indicator of progress in educational sector. For the present analysis, this indicator was limited to the primary and secondary level for want of detailed data. There were total of 216436 students on the rolls during 2005 in the district, the number of primary level students accounted for 45.3 per cent, middle level 29.15 per cent and the high/ senior secondary school students constituted 25.55 per cent. The enrolment was found to be highest in Balh block, followed by Sunder Nagar, Karsog, and Sadar. The enrolment rate was highest in primary segment, followed by middle segment and least in high/ senior secondary schools, in almost all the blocks. The low enrolment at the level of high/higher secondary level could also be on account of students shifting to places out of the district or because of opting for private schools for reasons of their better reputation.

Teachers are perhaps the most important resource in a school. The number and quality of teachers have direct bearing on the educational output. The shortage of teachers is reflected in pupil-teacher ratio (PTR). It was observed that, on an average there were 22 students per teacher in primary schools in 1996-97. This ratio went up to 23 in 2000-01 and 2001-02, then steadily declined to 15 in 2003-04 and ultimately reached at 19 in 2005-06. The fall in the expenditure on primary education may be attributed as one of the reason for this to happen. In case of middle schools the pupil-teacher ratio has shown declining trend overtime, which is quite obvious for reasons of rising trend in the number of teachers in this segment.

The primary school dropouts in the district show that the number of dropout students declined from 358 in 2001 to 113 in 2005. The fall in dropout rate was observed both in case of male and female students, with a higher decline in dropout rate for the male students. The analysis across blocks reflects that Chauntra, Gopalpur, Balh, and Sunder Nagar blocks had zero dropouts in 2005, while the dropouts also decreased in other blocks as well. Some of the reasons for this welcome state of affairs could be the improvement in PTR, increase in number of schools, decrease in distance of schools, provision of mid-day meals and improvement in quality of schools.

On overall basis, the number of out-of-school children during 2003-05 period decreased by 19.83 per cent. However, gender-wise look on the picture revealed that the number of out-of-school girls in fact, increased by 13.89 per cent. While the general decrease in the number of out-of-school children may have been the result of factors like the increase in or upgrading of the schools, higher literacy and awareness among the parents and the outcome of incentives like mid-day meal, etc., the increase in the number of out-of-school girls seems to be result of gender bias among parents.

The importance of human health in achieving developmental goals is undisputed. While on the one hand, a healthy human resource is the pre-condition of human development, on the other it is also one of the goals of development planning (Fang Jing, 2006). Therefore, the importance of adequate health facilities in this regard can hardly be overemphasized. In Mandi district, there has been marginal increase in the number of primary health centers (PHCs) in the recent past, whereas the number of government hospitals remained the same. The number of sub-centers declined, which may be due to the up-gradation of sub centers to that of PHCs. The different blocks of the district had a network of 6 government hospitals, 59 PHCs, and 308 sub-centers during the year 2005. The four blocks namely Balh, Chauntra, Chachyoit and Seraj do not have any government hospital and depend upon primary health centers and sub-centers for the medical care. The primary health centers have increased from 47 to 59 during the years 2001 to 2005. Although the number of PHCs increased by 25.53 per cent and the number of doctors by 10.71 per cent in during the period 2001-2005, yet there was no remarkable decline in the population served by per doctor. It was also observed that there was wide gap between the sanctioned and filled positions in almost all categories of the health staff, except the ministerial staff.

Among other health indicators, extent of malnourished children, immunization of the children, infant mortality, etc. are important. During 2004-05, the malnourished children, per thousand of total children, were estimated at 363 for the district as a whole. Among all the blocks, Balh block showed better performance in terms of nutritional status and ranked first in the district, followed by Sadar, Seraj, Dharampur, Karsog, and Sunder

Nagar block. Majority of the children were in the category of mildly malnourished (77.68%), followed by that of moderately malnourished (22.04%). The cases of severe and very severely malnutrition children were low at 0.26 and 0.02 per cent of the total malnourished children respectively. So far as immunization of the children is concerned, at overall level, about 83.17 per cent of the eligible children were immunized during 2001, while this figure rose to 98.29 per cent in 2005. The infant mortality rate for the district for 2005 is estimated to be 21.60 per thousand of live births. There is a wide variation in the Infant mortality rate among different blocks of the district and there is a need to focus on pre and post-natal care, hygiene, availability of potable water, and prevention of diseases like pneumonia, and diarrhea, etc. It was observed that only about 28 per cent rural households were having toilets in their homes.

Following the standard methodology, the infant mortality index for the year 2001 and 2005 worked out to be 0.03 and (-)0.003 respectively at overall level. Consequently, the combined health index was estimated at 0.97 and 1.00 for the year 2001 and 2005 respectively, indicating thereby a slight improvement in the health status in the district. The analysis across the blocks revealed an improvement in the health indices, over the position in 2001, in almost all the blocks barring the case of Sunder Nagar block. Both Drang and Chauntra blocks occupy the top position, followed by Sadar, and Chachyot in this regard.

Involvement of different sections of the people is important for sustainable development. Women representation in the governing body of Panchayats showed an impressive increase of 42.73 per cent during the last 10 years. Highest increase was observed in Balh block, followed by Chachyot block. The analysis indicated higher women empowerment with regard to their role in decision making process through village development activities. Gainful employment of the people, as denoted by work participation, acts an accelerator for the development process. Block-wise the the highest work participation rate in the district was observed in Sadar block, followed by Seraj and Chachyot blocks. The work participation rate for male is generally higher, though not distinctly higher, in all the blocks, except Darang, Chauntra and Dharampur where female work participation is higher than that of males. The total employment of about 3.81 lakh

man-days was generated, with highest in Sunder Nagar followed by Karsog, during the year 2005-06 in the district. Among the workers, majority of the marginal workers, irrespective of their sex, are cultivators. Proportion of female marginal workers working as cultivators is relatively higher in the district. At the overall level, the proportion of female cultivators worked out to be as high as 71.85 per cent of the total cultivators. The population of non-workers was more in urban areas (66.12%) as compared to rural areas. Distribution of main workers reveals that majority of the male workers are cultivators. Only a small number of workers are engaged in household industry in the district.

Forest, water, slate & sand mines, etc. are important natural resources of the district. The stone mines are predominant followed by sand and slate mines. There exist numerous sources of water in the district and almost all sources are tapped by the locals to meet their water requirements. The main natural sources of drinking water are *bauli, nalu, chashma, wells, shuah, maggar, naun, hand-pumps, and tube-wells*. As far as irrigation is concerned, *kuhls, nala, wells, and khad*, are the main sources. During the year 2003-04, 14.72 per cent of the net sown area was under irrigation in the district. The main source of irrigation is Kuhls which account for 98.40 per cent of total irrigated area in the district. Wells accounted for only 1.60 per cent of net irrigated area. The creation of additional irrigation infrastructure constitutes the important challenge for the enhancement of productivity and production levels in agricultural sector.

Physical access to the public services and infrastructure plays an important role in developmental process. It was noted that there was no change in the distance to be traveled from block headquarters to the nearest facility during the period 2001 to 2005. At overall level, 49.35 per cent villages were having primary schools within a distance of less than one kilometer, 34.97 per cent within a radius of 1-2 kms, 11.20 per cent within a distance of 2-3 kms, 4.29 per cent within 3-5 kms, and only 0.18 per cent villages had primary school at a distance of more than 5 kilometers. Out of 3338 villages of the district, nearly 46 per cent are connected with roads. Of these 981 villages (29%) are linked with pucca roads, while 560 villages (17%) have semi-pucca/ katcha roads. A wide variation in regard to the road network across the blocks was noticed in the district.

The financial institutions are having a wider network in all the blocks with highest network of commercial banks followed by RRBs and cooperative banks. A significant growth in number of branches of commercial and cooperative banks was noted during the study period 2001 to 2005. In the year 2005 the number of cooperative society shops operating in different blocks registered a 20.15 per cent growth over the year 2001. The government has taken various measures to ensure the supply of food materials through the *fair price shops* to the people. The supply of food items through public distribution system (PDS) has been strengthened both for *below* and *above poverty line* people in the district. There has also been an attempt to promote establishment of self-help groups (SHGs) for local level employment and income generation. Number of SHGs and their male and female representatives registered a positive growth in the year 2005 over 2001 in all the blocks of the district.

Allocation of land to different activities and to different components under an activity reflects the socio-economic decision making environment of the people. Wheat, maize and paddy, the dominant cereal crops grown in the district, account for 41.93, 29.33 and 12.67 per cent of the gross cropped area of 1.59 lakh hectares respectively. So far as the net area sown and total cropped area are concerned, the district seems to have enough scope for incorporating new technologies and high pay-off enterprises in the crop and livestock sub-sectors for enhancing the economic status of the farming community. Beside agriculture, animal husbandry plays an important role in the economy of the district. Cows accounted for the maximum proportion (50.04%), followed by goats (21.70%), sheep (14.85%) of the total of 874231 livestock.

Among the cereals, the area under maize in district has increased by 2.74 per cent with a maximum increase in Balh block (55.64%) followed by Dharampur (9.23%), and Chauntra (8.58%) during the period 2001-02 to 2005-06. In some blocks, there was a decline in area as well. In the matter of production, the district as a whole posted negative growth of 24.36 per cent in 2005-06 over the base year 2001-02. In case of paddy acreage a marginal increase of 2.33 per cent in 2005-06 over 2001-02 was noted. The production however registered a decline of 12.59 per cent during this period. Except Seraj block where

paddy registered positive growth in both area and production, other blocks showed negative growth in the production. This indicates that blocks having large area falling in low hills are concentrating more on cereals crops while blocks with high hills are shifting gradually towards fruits and vegetable crops. Wheat is one of the most important cereal crops of the rabi season in the district. It occupies largest area of gross cropped area in almost all the blocks. Gopalpur, Sadar, Balh and Karsog are among the most notable blocks with relatively larger area under wheat. In case of ragi, millets and pulses, the area and production in the district declined drastically during 2002-03 to 2005-06. Potato also happens to be one of the important crops of the district. The area and production of potato in the district indicated a decline of 12.25 and 6.23 per cent respectively between 2002-03 and 2005-06 period. Seraj, Drang, Chachyot, Sadar and Sunder Nagar were noted to be major potato producing blocks.

Many small production niches provide congenial conditions for the cultivation of high-value horticultural crops in the district. Within horticulture sector, fruits and vegetables have recorded a significant increase, both in area as well as production. Among the fruits, apple is the most important. Karsog, Sadar, Seraj and Chachyot are prominent blocks as far as apple cultivation is concerned. Increase in apple acreage was the highest (20.21%) in Seraj block, followed by Drang (16.66%) and Karsog (12.62%) during 2001-02 to 2005-06. The temperate stone fruits like peach, plum, apricot, and pear seem to be loosing their relevance in the horticultural scenario of the district over time, and their production declined by 62.42 per cent in the district during this period. Area and production of dry-nuts also decreased by 0.63 and 21.30 per cent respectively, during 2001-02 and 2005-06. The cultivation of citrus fruits is quite popular in Mandi district. During 2005-06 the area under citrus fruits was 3647 hectare with the production of 527 metric tonnes. The area under citrus fruits recorded a decline of 4.60 per cent in the district during the study period. The other sub-tropical fruits such as pomegranate recorded an impressive growth of 17.91 and 20.24 per cent in areas and production respectively. The increase in the area under these fruits was significant in Chachyot, Sunder Nagar, Sadar, Balh and Drang blocks.

Mandi district is gradually picking up momentum towards high value vegetable crops to augment income and employment. The vegetable sector has recorded a significant shift in area and output in the district. Area under total vegetables increased from 2769 ha in 1985-86 to 4874 ha in 2003-04, an impressive increase of 76.02 per cent, against the 105.50 per cent at the state level. This suggests that although the situation in this regard in the district is improving it still can go further to catch up with other districts. Among all vegetables grown in the district, tomato has emerged as fastest commercial farm activity.

The above discussion suggests that most developmental programmes are adding to the socio-economic welfare of the people of the district. Nevertheless, it is suggested that the pace of development can be hastened by taking into consideration the local natural and other resources for their optimal utilization. The natural forests, water resources and the religious places of importance and many other such resources can be considered in a holistic way to promote sustainable economic activities in the district. Variations in infrastructural facilities and services across blocks must be addressed on priority because equity is the *core* of the philosophy of development. People of the district are alive to the social and economic opportunities in farming and other sectors. However, there is a need to provide policy support to better harness these potentials.

Appendices

Appendix-I: Urban population in Mandi district as per 2001 census.

| Urban area | Urban Population | | |
|---------------------------------|---------------------------------|---------------------------------|---------------------------------|
| | Male | Female | Total |
| Mandi (Municipal Committee) | 14233 (44.21) | 12640 (43.91) | 26873 (44.07) |
| Rewalsar (Nagar Parishad) | 745 (2.31) | 624 (2.17) | 1369 (2.24) |
| Joginder Nagar (Nagar Parishad) | 2663 (8.27) | 2385 (8.28) | 5048 (8.28) |
| Sarkaghat (Nagar Parishad) | 1870 (5.81) | 1836 (6.38) | 3706 (6.08) |
| Sunder Nagar (Nagar Parishad) | 12685 (39.40) | 11301 (39.36) | 23985 (39.33) |
| TOTAL Urban | 32196 (100.00) | 28786 (100.00) | 60982 (100.00) |

Source: Census Report 2001

Figures in parentheses are percentage to total urban population.

Appendix-II: Scheduled caste population in urban areas of Mandi district.

| Urban Area | 1991 | | | 2001 | | | % Change over 1991 | | |
|-------------------------|--------------------------------|--------------------------------|---------------------------------|--------------------------------|--------------------------------|---------------------------------|--------------------|--------------|--------------|
| | M | F | T | M | F | T | M | F | T |
| Joginder Nagar (NP) | 560 (9.70) | 565 (10.68) | 1125 (10.17) | 605 (9.63) | 598 (10.30) | 1203 (9.95) | 8.04 | 5.84 | 6.93 |
| Sarkaghat (NP) | 379 (6.56) | 388 (7.33) | 767 (6.93) | 425 (6.76) | 444 (7.64) | 869 (7.19) | 12.14 | 14.43 | 13.30 |
| Rewalsar (NP) | 110 (1.90) | 107 (2.02) | 225 (2.03) | 137 (2.18) | 125 (2.15) | 262 (2.17) | 24.54 | 16.82 | 16.44 |
| Sunder Nagar (MC) | 2148 (37.19) | 2030 (38.37) | 4178 (37.76) | 2599 (41.36) | 2338 (40.25) | 4937 (40.83) | 21.01 | 15.17 | 18.17 |
| Mandi (MC) | 2081 (36.03) | 1918 (36.26) | 3999 (36.14) | 2518 (40.07) | 2302 (39.63) | 4820 (39.86) | 21.01 | 20.02 | 20.53 |
| Total Urban Area | 5775 (100.00) | 5290 (100.00) | 11065 (100.00) | 6284 (100.00) | 5808 (100.00) | 12091 (100.00) | 8.81 | 9.79 | 9.27 |
| District Mandi | 113430 | 112339 | 225769 | 131083 | 130151 | 261233 | 15.56 | 15.85 | 15.71 |

Figures in parentheses are percentage to total urban area.

Source: Census Reports 1991, 2001

Appendix-III: Scheduled tribe population in urban areas of Mandi district.

| Urban Area | 1991 | | | 2001 | | | % Change over 1991 | | |
|------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|--------------------|---------|---------|
| | M | F | T | M | F | T | M | F | T |
| Joginder Nagar | 8 (3.15) | 8 (4.68) | 16 (3.76) | 27 (10.71) | 16 (9.81) | 43 (10.36) | 237.50 | 100.00 | 168.75 |
| Sarkaghat | 7 (2.75) | 6 (3.51) | 13 (3.06) | 15 (5.95) | 5 (3.07) | 20 (4.82) | 114.28 | -16.67 | 53.85 |
| Rewalsar | 1 (0.39) | 0 (0.00) | 1 (0.23) | 48 (19.05) | 14 (8.59) | 62 (14.94) | 4700.00 | 1400.00 | 6100.00 |
| Sunder Nagar | 56 (22.05) | 31 (18.13) | 87 (20.47) | 77 (30.55) | 51 (31.29) | 128 (30.84) | 37.50 | 64.52 | 47.13 |
| Mandi | 90 (35.43) | 57 (33.33) | 147 (34.59) | 85 (33.73) | 77 (47.24) | 162 (39.04) | -5.55 | 35.09 | 10.20 |
| Total Urban Area | 254 (100.00) | 171 (100.00) | 425 (100.00) | 252 (100.00) | 163 (100.00) | 415 (100.00) | -0.79 | -4.68 | -2.35 |
| District Mandi | 4884 | 4694 | 9578 | 5307 | 5257 | 10564 | 8.66 | 11.99 | 10.29 |

Figures in parentheses are percentage to total urban area.

Source: Census Reports 1991, 2001

Appendix-IV: Social group-wise population in Mandi district.

(Per cent)

| Block/Urban Area | 1991 | | 2001 | |
|--------------------|-------|------|-------|------|
| | SC | ST | SC | ST |
| Sadar | 28.74 | 1.24 | 28.50 | 1.28 |
| Balh | 43.33 | 1.51 | 43.03 | 1.54 |
| Darang | 20.13 | 4.31 | 19.51 | 4.18 |
| Choantra | 24.15 | 1.90 | 24.71 | 1.50 |
| Gopalpur | 26.08 | 1.99 | 25.81 | 1.84 |
| Dharpur | 21.31 | 0.01 | 20.71 | 0.02 |
| Chachyot | 34.86 | 0.08 | 34.73 | 0.23 |
| Siraj | 26.91 | 0.05 | 27.45 | 0.05 |
| S.Nagar | 36.06 | 0.97 | 36.15 | 0.96 |
| Karsog | 30.41 | 0.53 | 31.21 | 0.41 |
| Overall Block | 29.65 | 1.26 | 29.64 | 1.20 |
| URBAN AREAS | | | | |
| Joginder Nagar | 24.92 | 0.35 | 23.83 | 0.85 |
| Sarkaghat | 24.79 | 0.42 | 23.44 | 0.53 |
| Riwalsar | 21.53 | 0.09 | 19.13 | 4.52 |
| S.Nagar | 20.48 | 0.42 | 20.58 | 0.53 |
| Mandi | 17.23 | 0.63 | 18.27 | 0.61 |
| Overall Urban | 21.17 | 0.81 | 19.82 | 0.68 |
| Mandi District | 29.08 | 1.23 | 28.98 | 1.17 |

Appendix-V: Area and population density in urban areas of Mandi district

| Urban Area | 1991 | | 2001 | |
|------------------|--------------------------------------|---|--------------------------------------|---|
| | Geographical Area (Km ²) | Pop ⁿ Density/ Km ² | Geographical Area (km ²) | Pop ⁿ Density/ Km ² |
| Joginder Nagar | 4.25 | 1062 | 4.25 | 1188 |
| Sarkaghat | 2.95 | 1048 | 2.95 | 1256 |
| Rewalsar | 3.97 | 263 | 3.97 | 345 |
| Sunder Nagar | 11.46 | 1780 | 11.46 | 2093 |
| Mandi | 4.26 | 5446 | 4.26 | 6308 |
| Total Urban Area | 26.89 | 1943 | 26.89 | 2268 |
| District Mandi | 3950.58 | 197 | 3950.58 | 228 |

Source: Census Reports 1991, 2001

Appendix-VI: Sex ratio in urban areas of Mandi district.

| Urban Area | 1991 | 2001 | % change over 1991 |
|----------------|------|------|--------------------|
| Joginder Nagar | 919 | 896 | -2.50 |
| Rewalsar | 805 | 838 | 4.10 |
| Sarkaghat | 980 | 982 | 0.20 |
| Sunder Nagar | 888 | 891 | 0.34 |
| Mandi | 884 | 888 | 0.45 |
| Pandoh | 581 | N.A | N.A |
| Urban Area | 869 | 894 | 2.88 |
| District Mandi | 1013 | 1012 | -0.09 |

Appendix-VII: Block wise number of JBT teachers (JBT/ HT/ CHT/ VU/ GVU/ PA) in Mandi district.

| Blocks | 2001 | | | 2005 | | | % change over 2001 | | |
|--------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------------|--------------|--------------|
| | Male | Female | Total | Male | Female | Total | Male | Female | Total |
| Sadar | 242 | 416 | 658 | 253 | 369 | 622 | 4.54 | -11.29 | -5.47 |
| Balh | 131 | 220 | 351 | 135 | 196 | 331 | 3.05 | -10.90 | -5.69 |
| Drang | 150 | 141 | 291 | 127 | 122 | 249 | -15.30 | -13.47 | -14.43 |
| Chauntra | 178 | 121 | 299 | 173 | 99 | 272 | -2.80 | -18.18 | -9.03 |
| Gopalpur | 200 | 186 | 386 | 154 | 196 | 350 | -23.00 | 5.37 | -9.32 |
| Dharampur | 251 | 187 | 438 | 195 | 221 | 416 | -22.31 | 18.18 | -5.02 |
| Chechyoit | 73 | 26 | 99 | 62 | 23 | 85 | -15.06 | -11.53 | -14.14 |
| Seraj | 288 | 65 | 353 | 283 | 83 | 366 | -1.73 | 27.69 | -3.68 |
| Sunder Nagar | 258 | 215 | 473 | 253 | 198 | 451 | -1.93 | -7.90 | -4.65 |
| Karsog | 417 | 117 | 464 | 379 | 125 | 504 | -9.11 | 6.84 | 8.62 |
| Total | 2188 | 1694 | 3882 | 2014 | 1632 | 3846 | -7.95 | -3.65 | -0.93 |

Appendix-VIII: Block-wise, scheduled caste, scheduled tribe & OBC teachers of primary schools in Mandi district

| Blocks | 2001 | | | 2005 | | | % change over 2001 | | |
|--------------|------------|------------|------------|------------|------------|------------|--------------------|--------------|-------------|
| | Male | Female | Total | Male | Female | Total | Male | Female | Total |
| Sadar | 59 | 20 | 79 | 54 | 19 | 73 | -8.47 | -5.00 | -7.59 |
| Balh | 11 | 9 | 20 | 7 | 5 | 12 | -36.00 | -44.00 | -40.00 |
| Drang | 142 | 107 | 249 | 151 | 97 | 248 | 6.33 | -9.34 | -0.40 |
| Chauntra | 101 | 36 | 137 | 115 | 36 | 151 | 13.86 | 0.00 | 10.21 |
| Gopalpur | 41 | 25 | 66 | 48 | 25 | 73 | 17.07 | 0.00 | 10.60 |
| Dharampur | 23 | 18 | 41 | 16 | 17 | 33 | -30.43 | -5.55 | -19.50 |
| Chechyoit | 40 | 15 | 55 | 55 | 18 | 73 | 37.50 | 20.00 | 32.72 |
| Seraj | 38 | 11 | 49 | 54 | 1 | 55 | 52.63 | -90.90 | 12.24 |
| Sunder Nagar | 16 | 31 | 47 | 16 | 31 | 47 | 0.00 | 0.00 | 0.00 |
| Karsog | 50 | 42 | 92 | 56 | 45 | 101 | 12.00 | 7.14 | 9.78 |
| Total | 521 | 314 | 828 | 572 | 294 | 866 | 9.79 | -6.36 | 4.58 |

Appendix-IX: Block wise number of trained graduate teachers in Mandi district.

| Blocks | 2001 | 2005 | % change over 2001 |
|---------------|-------------|-------------|---------------------------|
| Sadar | 194 | 266 | 137.11 |
| Balh | 164 | 177 | 107.93 |
| Drang | 131 | 172 | 131.30 |
| Chauntra | 107 | 152 | 142.06 |
| Gopalpur | 166 | 185 | 111.45 |
| Dharampur | 139 | 182 | 130.94 |
| Chechoit | 76 | 124 | 163.16 |
| Seraj | 112 | 161 | 143.75 |
| Sunder Nagar | 139 | 208 | 149.64 |
| Karsog | 130 | 191 | 146.92 |
| Total | 1358 | 1818 | 133.87 |

Appendix-X: Block-wise number of physical education teachers (DP.Ed) in Mandi district.

| Blocks | 2001 | 2005 | % change over 2001 |
|---------------|-------------|-------------|---------------------------|
| Sadar | 12 | 13 | 8.33 |
| Balh | 4 | 7 | 75.00 |
| Drang | 5 | 7 | 40.00 |
| Chauntra | 6 | 7 | 16.66 |
| Gopalpur | 7 | 8 | 14.28 |
| Dharampur | 8 | 7 | -12.50 |
| Chachyot | 3 | 4 | 33.33 |
| Seraj | 5 | 6 | 20.00 |
| Sunder Nagar | 8 | 12 | 50.00 |
| Karsog | 4 | 8 | 100.00 |
| Total | 62 | 79 | 127.42 |

Appendix-XI: Block-wise number of language teachers in Mandi district.

| Blocks | Years | | % change over 2001 |
|--------------|------------|------------|--------------------|
| | 2001 | 2005 | |
| Sadar | 32 | 37 | 15.62 |
| Balh | 18 | 34 | 88.88 |
| Drang | 22 | 23 | 4.54 |
| Chauntra | 17 | 17 | 0.00 |
| Gopalpur | 30 | 34 | 13.33 |
| Dharampur | 29 | 31 | 6.89 |
| Chechoit | 20 | 20 | 0.00 |
| Seraj | 10 | 10 | 0.00 |
| Sunder Nagar | 33 | 33 | 0.00 |
| Karsog | 12 | 15 | 25.00 |
| Total | 223 | 254 | 13.90 |

Appendix-XII: Number of literates in Mandi district (2001).

| Blocks | Total literates | | | Total adult Population | | | Adult literates | | |
|--------------|-----------------|---------------|---------------|------------------------|---------------|--------------|-----------------|---------------|---------------|
| | Male | Female | Total | Male | Female | Total | Male | Female | Total |
| Sadar | 54682 | 41644 | 96326 | 48103 | 47893 | 95996 | 42371 | 30839 | 73210 |
| Balh | 37863 | 30038 | 67901 | 33306 | 33305 | 66611 | 25026 | 17187 | 42213 |
| Darang | 25511 | 19881 | 43392 | 19527 | 22076 | 41603 | 14281 | 7947 | 22228 |
| Chauntra | 25351 | 22454 | 47805 | 21140 | 26322 | 47462 | 17730 | 15003 | 32733 |
| Gopalpur | 32863 | 29744 | 62607 | 26378 | 31149 | 57527 | 22364 | 19794 | 42158 |
| Dharampur | 28189 | 25707 | 53916 | 24351 | 29313 | 53664 | 20647 | 17827 | 38474 |
| Chachiot | 22176 | 16148 | 38324 | 17837 | 18868 | 36705 | 13889 | 8875 | 22764 |
| Seraj | 26996 | 16767 | 43763 | 21807 | 21929 | 43736 | 16829 | 7823 | 24652 |
| Sunder Nagar | 44396 | 33269 | 77665 | 39771 | 38749 | 78520 | 32018 | 21950 | 53968 |
| Karsog | 32931 | 23260 | 56191 | 28299 | 28854 | 57153 | 20979 | 12087 | 33066 |
| Total | 330952 | 256932 | 587884 | 280361 | 298616 | 57977 | 226134 | 159332 | 385466 |

Appendix-XIII: Block-wise status of malnourished children (0-6 year) in Mandi district.

| Blocks | 2005-06 | | | | Rank |
|--------------|-------------------------|-----------------------------------|-----------------------------|---|------|
| | Total children weighted | Total children with normal weight | Total children malnourished | Malnourished children per 1000 children | |
| Sadar | 9993 | 6929 | 3064 | 306 | VI |
| Balh | 5621 | 4211 | 1410 | 250 | II |
| Drang | 4388 | 2593 | 1795 | 409 | VII |
| Chauntra | 7073 | 5768 | 1305 | 184 | I |
| Gopalpur | 5978 | 3478 | 2500 | 418 | VIII |
| Dharampur | 5662 | 3069 | 2593 | 458 | X |
| Chechyoit | 5969 | 3245 | 2724 | 456 | IX |
| Seraj | 5728 | 3615 | 2113 | 368 | VI |
| Sunder Nagar | 7846 | 5116 | 2730 | 347 | V |
| Karsog | 10248 | 7157 | 3091 | 301 | III |
| Total | 68506 | 45181 | 23325 | 340 | |

Source: District Programme Officer, Mandi.

Appendix-IV: Block and level-wise status of malnourished children (0-6 year) in Mandi district for the year 2005-06.

| Blocks | Total malnourished children | Grade-I (Mild) | Grade-II (Moderate) | Grade-III (Severe) | Grade-IV (Very severe) |
|--------------|-----------------------------|--------------------------|-------------------------|----------------------|------------------------|
| Sadar | 3064 (100.00) | 2552 (83.29) | 490 (15.99) | 18 (0.59) | 4 (0.13) |
| Balh | 1410 (100.00) | 1295 (91.85) | 103 (7.30) | 12 (0.85) | -- |
| Drang | 1795 (100.00) | 1331 (74.15) | 455 (25.35) | 9 (0.50) | -- |
| Chauntra | 1305 (100.00) | 1139 (87.28) | 156 (11.95) | 10 (0.77) | -- |
| Gopalpur | 2500 (100.00) | 1993 (79.72) | 496 (19.84) | 9 (0.36) | 2 (0.08) |
| Dharampur | 2593 (100.00) | 1865 (71.92) | 715 (27.58) | 10 (0.38) | 3 (0.12) |
| Chechyoit | 2724 (100.00) | 1778 (65.27) | 944 (34.66) | 2 (0.07) | -- |
| Seraj | 2113 (100.00) | 1768 (83.67) | 345 (16.33) | -- | -- |
| Sunder Nagar | 2730 (100.00) | 2182 (79.93) | 541 (19.82) | 7 (0.25) | -- |
| Karsog | 3091 (100.00) | 2599 (84.08) | 489 (15.82) | 3 (0.10) | -- |
| Total | 23325 (100.00) | 18502 (79.33) | 4734 (20.29) | 80 (0.34) | 9 ((0.04) |

Figures in parentheses are percentage to respected total malnourished children

Source: District Programme Officer, Mandi.

Appendix-XV: Area under principal crops in Mandi district.

| Crops | Year 2004-05 | |
|---------------------------|-----------------|---------------|
| | Area (ha.) | Percentage |
| Wheat | 66488 | 41.93 |
| Paddy | 20092 | 12.69 |
| Maize | 46517 | 29.33 |
| Barley | 3804 | 2.40 |
| Small millets | 525 | 0.33 |
| Ragi | 1156 | 0.73 |
| Pulses | 3478 | 2.19 |
| Total food-grains | 142060 | 89.90 |
| Potato | 2453 | 1.55 |
| Ginger | 86 | 0.05 |
| Chillies | 167 | 0.11 |
| Sarson/ toria | 361 | 0.23 |
| Linseed | 321 | 0.20 |
| Sesamum | 29 | 0.02 |
| Tea | 469 | 0.30 |
| Others | 12113.75 | 7.64 |
| Total cropped area | 158557 | 100.00 |

Figures in parentheses are percentages to the total cropped area.

Source: Statistical Abstract of Mandi district 2006.

References

- Jing, Feng. 2006. Repositioning Human Health in Development. Sustainable Mountain Development. No. 52, Spring. ICIMOD, Kathmandu, Nepal.
- Kollmair, Michael. Greater Voices for all Mountain People in the Himalayan Region. Sustainable Mountain Development. No. 52, Spring. ICIMOD, Kathmandu, Nepal.
- PROBE (1991), Public Report on Basic Education, New Delhi; Oxford University Press, Oxford.
- Sharma, LR and Negi, YS. (2005). Approaches for Marketing and Crop Diversification of Commercial Vegetables in Himachal Pradesh. Department of Social sciences, Dr YS Parmar University of Horticulture and Forestry, Nauni, Solan, Himachal Pradesh.
- Sinha, S. (1996). Child Labour and Education Policy in India. The Administrator, Vol.41, no.3.
- Viner, J. (1953). International trade and Economic Development. Oxford University Press, Oxford.
- Weiner, M. (1991) The Child and the State in India. Princeton University Press.
- Gazetteer of the Mandi State (1920). Indus Publishing Company, New Delhi.
- Gazetteer of the Suket State (1927). Indus Publishing Company, New Delhi.
- Primary Census Survey Abstract (2001). Directorate of Census Operation, Himachal Pradesh.
- Primary Census Survey Abstract, Community Development Block-wise (2001). Directorate of Census Operation, Himachal Pradesh.
- Village Directory, Amenities and Land Use Census (2001). Directorate of Census Operation, Himachal Pradesh.
- Statistical Abstract of Mandi District (2006). District Statistical Officer, Mandi, Himachal Pradesh.
- Statistical Outline of Himachal Pradesh, (Various Issues). Economics and Statistics Department, Himachal Pradesh.
- School Listing Report. HP Primary Education Society-cum- Sarva Shiksha Abhiyan, State Mission Authority, DPEP Bhawan, Lalpani, Shimla, Himachal Pradesh.

<http://www.hpmandi.gov.in>

<http://www.himachal.nic.in>