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**VIABLE ENTREPRENEURIAL TRADE FOR
WOMEN IN AGRICULTURE IN
UTTARANCHAL**

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EXECUTIVE SUMMARY

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By

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Abstract: The study aims at identifying the alternate viable economic activities for women in the state of Uttaranchal. The study is based on a primary data survey conducted in the Udham Singh Nagar district of Uttaranchal. In all, seven economic activities - dairying, poultry, papadmaking, mushroom, beekeeping, quilting and petty business have been analysed in the study. The results of the study indicate that papadmaking and petty business (fruit selling, small shop etc) contribute significantly to augment incomes of the households that derive little or no income from farming. Poultry is the most profitable entrepreneurial activity mainly because of some innovative interventions by the government, complemented by the local NGOs. There is potential for income generation in mushroom cultivation and beekeeping, provided proper training is imparted and marketing facilities are provided. Papadmaking and quilting activities are also constrained by lack of marketing facilities while petty business faces the constraint of easy credit availability.

Introduction: Women's participation in Indian rural economy is significant. According to some estimates, 84% of the economically active women population is engaged in agriculture and allied activities (ICAR, 2001). Also, women perform the labour-intensive and drudgery-prone tasks like transplantation, weeding, harvesting,

winnowing, collecting fodder, milking and collection of dung. It is important to reduce the drudgery of women in agriculture and one option is to identify alternate economic activities, which are viable in the backdrop of the economic, social and institutional constraints. The present study is a step in this direction. The study aims to identify the alternate viable economic activities for women in the state of Uttaranchal. The specific objectives of the study are the following.

- i) To assess the economic viability of the major entrepreneurial activities of women in the region.
- ii) To study the impact of these trades on the women beneficiaries in terms of income and their socio-economic condition.
- iii) Identify the major constraints and suggest the required infrastructural, institutional and other support mechanism needed.

Methodology: The study is based on a primary data survey conducted in Udham Singh Nagar district of Uttaranchal. The entrepreneurial activities common in the region were identified, based on the lists of training courses and attendees of the workshops organized at the G. B. Pant University of Agriculture & Technology, Pant Nagar and, in consultation with the experts at the Department of Home Science, GB Pant University. A list of villages, where the selected activities are undertaken, is prepared. The method of multi-stage sampling is adopted. In the first stage, a simple random sample of villages is selected from the list of villages. In the second stage, a simple random sample of households is selected from among the female-entrepreneur households of each activity in the selected villages (in the first stage).

Net income of the households is calculated activity-wise and compared with the normative poverty line income of the region in 1999-00, to assess the economic viability of the activities.

Results: Results of the study show that as alternate/supplementary economic activities, papadmaking, petty business and poultry contribute significantly (more than 50%) to household income (Table 1). These three activities provide a level of income higher than the poverty line income of the region (Table 2). Poultry is a very successful entrepreneurial activity in the region, mainly because of the government support complemented by the efforts of local NGOs. Although potential for income generation exists in case of mushroom cultivation and beekeeping, it remained untapped mainly because of constraints like proper training and marketing (Table 3). The problems & constraints facing various activities and the suggested corrective action are also outlined in the study (Table 4).

TABLE 1: Proportion of Total Household Income by Category of Entrepreneurship (%)

Activity	Farm Income	Entrepreneurial Income	Wage Income	Total
Dairying	74	23	3	100
Poultry	40	58	3	100
Papad Making	0	86	14	100
Mushroom	100	0	0	100
Beekeeping	80	20	0	100
Quilt making	59	13	28	100
Petty Business	19	70	12	100

TABLE 2: Entrepreneurial (non-farm) Income of the Sample Households

(Rs per capita per Annum)

Activity	Income	Paid-out Costs	Net Income (2004-05)	Net Income (1999-00 prices)	Poverty Line Income for Uttaranchal (1999-00)
Dairying	4033	1257	2776	2703	4043
Poultry	36917	19733	17183	16732	4043
Papad Making	24033	18752	5281	5142	4043
Mushroom	300	284	16	16	4043
Beekeeping	4260	1400	2860	2785	4043
Quilt making	1165	80	1085	1056	4043
Petty Business	16876	11590	5286	5147	4043

TABLE 3: Most Binding Constraint Faced by the Household

(% of Households)

Activity	Financial	Technical	Infrastructure	Marketing	Institutional	Others
Dairying	31	23	38	0	0	0
Poultry	40	20	40	40	20	0
Papad Making	60	0	33	47	67	0
Mushroom	0	100	50	100	0	0
Beekeeping	0	100	0	0	0	0
Quilt making	67	17	50	67	17	0
Petty Business	10	0	30	10	0	0

Table 4: Constraints / Problems and the Proposed Corrective Action

S.No	Activity	<u>Problems/ Constraints</u>	Suggested Corrective Action	Agency
1	Dairying	Feed/fodder, animal health services	Provision of health care facilities.	Government
2	Beekeeping	Technical guidance and marketing facilities	Provision of training and developing marketing	Government / NGO s
3	Mushroom cultivation	Technical guidance and marketing facilities	Provision of training and developing marketing	Government / NGO s
4	Quiltmaking	Inadequate payment by the contractors, health problems.	Ensure timely & adequate payment, provision of health care	Government
5	Petty Business	Availability of finance	Credit provision through rural banks, development of SHG s and thrift groups	Government / NGO s
6	Papadmaking	Availability of finance, marketing facilities	Credit provision through rural banks, SHG s and thrift groups; collectivizing marketing through co-operatives	Government / NGO s

Preface

Women's contribution to Indian rural economy is significant. Women generally undertake the relatively labour-intensive and drudgery-prone tasks in both, farming and non-farming sectors. In the economies of the hill regions, where men migrate in search of livelihood leaving behind a truncated family, women's role becomes even more crucial. Women cultivate the land and look after the children and the old. It cannot be overstated that life in the hill villages is sustained only because of women's work. Given this multitudinous nature of women's role in the hill regions, the need to identify alternate viable economic activities to augment family incomes becomes imperative. The present study is a step in this direction. The study region is the state of Uttaranchal.

We have received help and assistance from various people and organizations in this work. First and foremost, I wish to thank Professor Leena Bhattacharya, Professor Abha Ahuja and their dedicated team of students/researchers of the Department of Home science, G.B. Pant University of Agriculture & Technology, Pantnagar, for their help in providing the details of the training programmes held at their department. I wish to thank Dr Jaya Mishra of the Kumaon Sewa Smiti for helping us in understanding the local conditions in the region and also providing valuable guidance in our fieldwork.

I wish to thank the team of Mr P.K. Bhattacharya, Mr Mool Chand Panchal, Mr K.K. Shangari and Mr Balbir Singh for a painstaking fieldwork. I thank Mrs Santosh Mann and Mrs Praveen Taneja for inputting the data. My special thanks go

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CSC Sekhar
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CHAPTER 1

INTRODUCTION

Women's participation in India's rural economy is significant and growing. Women constitute nearly one-third of the labour force and nearly 50 per cent of the working population in the self-employed farming households. Nearly 84 per cent of the total economically active women population of India is engaged in agriculture and allied activities. In dairying, there are an estimated 75 million women as against only 15 million men. In animal husbandry, nearly 20 million women are engaged as against 1.5 million men (ICAR, 2001). Recent studies indicate that the majority of adult women in rural India are not housewives but are farmers or farm workers. The estimates show that women put in about 14 to 18 hours of manual work daily in activities like farm operations, livestock rearing and collecting fodder, fuel and drinking water from distant sources. They perform nearly 70-80 per cent of the manual operations in crop production or livestock rearing.

In spite of such significant contribution, women are classified as 'marginal' workers in the census data. This is because of the concept of 'economic activity' used in the census. According to census, for an activity to be classified as economic activity, the production must be for non-domestic use and must enter the market. However, in a subsistence economy like that of the hill regions, where most men migrate to plains in search of livelihood, almost all the output produced (by women) is normally consumed at home leaving little or no marketable surplus. It must be borne in mind that the life in the hill villages is sustained only because of women's work, although that work is neither classified as 'economic' activity nor the output of that work

enters the market. The major portion of the household income (in kind) in the form of food grains, milk, fruit etc is generated by women. Women work 8-10 hours to generate these streams of income for the family. Their primary activity is therefore economic in nature, by virtue of earning income for the family, and not domestic work. Therefore, whether one applies the criterion of *time* or *income*, the major activity of women in the hills is productive work and not domestic work and as such they should be classified as full-time workers (Bose, 2000).

Studies have also pointed out that the time-consuming and labour-intensive farm activities like transplantation, weeding, harvesting, winnowing etc are normally carried out by women. Similarly in animal husbandry, women perform drudgery-prone tasks like collecting fodder, milking and collection of dung. The broad profile and the difficulty details of some of the activities carried out by women are as follows (ICAR, 2001).

Table 1.1 Participation of Women in Various Activities

Farm Operations

Activity	Percent Performers	Time Spent (hrs/yr)	Difficulty Score of the Activity
Cutting/uprooting	69	166	4.34
Transplanting	74	211	4.29
Weeding	65	274	4.23
Sowing	54	94	3.94
Sieving	59	76	3.63
Cleaning	57	89	3.46

Dairying

Activity	Percent Performers	Time Spent (hrs/yr)	Difficulty Score of the Activity
Collecting Fodder	51	190	3.58
Milking	55	162	3.12
Collecting Dung	50	144	3.11
Cleaning Shed	69	144	3.08
Feeding Animals	67	212	2.88
Processing Milk	65	146	2.62

Source: ICAR (2001), *Mission Mode Project on Empowerment of Women*

Two aspects become clear from the foregoing introduction, which need the immediate attention of the policymakers.

- i) Developing appropriate instruments and technology to reduce drudgery for rural women.
- ii) Suggest and promote alternate viable activities for rural women to augment their family incomes.

The first aspect has been analysed in ICAR (2001). The present study aims at evaluating and assessing the economic and institutional viability, *ex-post*, of some of the entrepreneurial activities carried out by rural women. The region selected in our study is the state of Uttaranchal.

The specific objectives of the study are the following:

- iv) To assess the economic viability of the major entrepreneurial activities of women in the region.

- v) To study the impact of these trades on the women beneficiaries in terms of income and their socio-economic condition.
- vi) Identify the major constraints and suggest the required infrastructural, institutional and other support mechanism needed.

Sampling Frame and Sampling Methodology

Udham Singh Nagar is the selected district for our analysis. The entrepreneurial activities common in the region were identified, based on the lists of training courses and attendees of the workshops organized at the G. B. Pant University of Agriculture & Technology, Pant Nagar and, in consultation with the experts at the Department of Home Science, GB Pant University. A list of villages, where the selected activities are undertaken, is prepared. The method of multi-stage sampling is adopted for sample selection. In the first stage, a simple random sample of villages is selected from the list of villages. In the second stage, a simple random sample of households is selected from among the female-entrepreneur households of each activity in the selected villages (in the first stage). In all seven activities-dairying, poultry, papadmaking, mushroom cultivation, bee keeping, quiltmaking and petty business have been selected. Other activities in the region, although not in the sampled villages, are basket-making, mosaic printing, pickle making etc. Basic details of the sample households are provided in Table 1.2 (and also in chapter 3).

Table 1.2: Households and Population by Entrepreneurial Activity

Activity	% of Sample Households	% of Sample Population	Av size of the Landholding (operated land)	% of Women in Sample Pop	% of HHlds with Trained Woman entrepreneur
Dairying	25	25	2.81	32	8
Poultry	10	9	3.50	25	80
Papad Making	29	26	0.00	32	0
Mushroom	4	5	6.75	33	100
Beekeeping	2	2	4.50	40	100
Quilt making	12	11	1.50	39	0
Petty Business	19	21	0.35	26	10
Total	100	100	1.63	31	17

CHAPTER 2

A BROAD OVERVIEW OF THE STUDY REGION

2.1 The State

Uttaranchal is a hilly state with only a little more than 7 per cent of the area being in the plains. About 60% of the area (in 2005-06) is under forest cover and only 13% is cultivated. Soil and water erosion are serious problems, owing to the slopy terrain, constraining agriculture. The state is predominantly rural with about 74% of the population living in rural areas (Population Census, 2001). Urbanization is mainly confined to the plains. In Uttaranchal, about 90% of the population is dependent on agriculture. The population density (no of persons/Sq.Km) in Uttaranchal is 159, which is much lower than that of all-India (313).

However, the implication of this seeming low population density (for agriculture) is misleading, as only 13% of the land is available for cultivation in the state (Table 2.1). In fact, if we consider only the land available for cultivation, the pressure on land is very high in the state, leading to fragmentation of the landholdings. The scattered nature of the landholdings because of the hilly terrain together with the fragmentation and slopy topography makes irrigation-intensive agriculture very difficult. The topography of the hills makes transportation difficult and renders self-sufficiency in production a necessity. This is mainly responsible for the subsistence agriculture prevalent in the region. The inaccessibility of the region also hinders private investment flow, market development and reach of the social services. There are some sectors that hold promise for the region though. They are tourism and

resource-based agro industries like pharmaceuticals, medicinal and aromatic plants, cosmetics and essential oils.

In the Uttarakhand economy (fig 2.1), the contribution of the tertiary sector is the highest, about 40% of the gross state domestic product (average GSDP during 2001-04), followed by the primary sector (36%) and the secondary sector (24%). Within the primary sector (fig 2.2), a lion's share is of agriculture (85%), followed by forestry and logging (10%). Other activities account for less than 5% of the primary sector output. Registered manufacturing (40%) and construction (40%) are the major economic activities in the secondary sector (fig 2.3). Coming to the most important tertiary sector, trade, hotels and restaurants (18%), real estate (17%), banking (15%) and public administration (15%) are the major activities (fig 2.4).

Taking a closer look at agriculture (fig 2.5), cereals (35%), fruits & vegetables (35%) and sugar (23%) are the major sub-sectors in terms of the share in value of aggregate agricultural output. Uttarakhand's agriculture remained untouched by the green revolution, mainly because of the inaccessibility factor, and as a result remained mainly subsistence in nature. The crops cultivated are mostly cereals, constituting more than 80 per cent of the gross cropped area and pulses & oilseeds that cover about 8% of the area in 2005-06 (Table 2.2). However, Uttarakhand appears more suitable for non-conventional crops (Table 2.3), as may be judged from the production scenario of different crops in the state in relation to Uttar Pradesh (from which Uttarakhand emerged in 2000). Condiments and spices (24%), fruits & vegetables (12%), livestock (9%) and sugar (7%) appear to be more

common in this hilly state, in contrast to the conventional cereals and pulses grown in the plains of Uttar Pradesh. The figures here indicate the production of the crop in Uttaranchal as a percentage of production in UP.

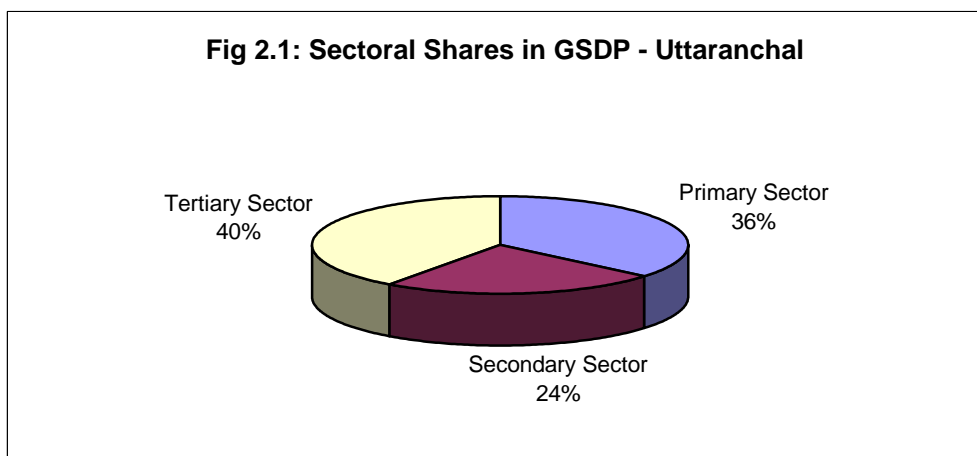


Table 2.1 Land Use in Uttaranchal - 2002/03

Category of Landuse	Area (Hectare)	% to Total Reported Area
Total Reported Area	5784119	100
Forest Cover	3467918	60
Culturable Waste	386456	7
Fallow	112415	2
(i) Current Fallow	41048	1
(ii) Other Fallow	71367	1
Barren & Unculturable Land	312470	5
Land put to Un-agricultural Uses	152145	3
Permanent Pasture & Other		
Grazing Land	229322	4
Misc., Tree Crops and Groves	252189	4
Net Area Sown	758789	13

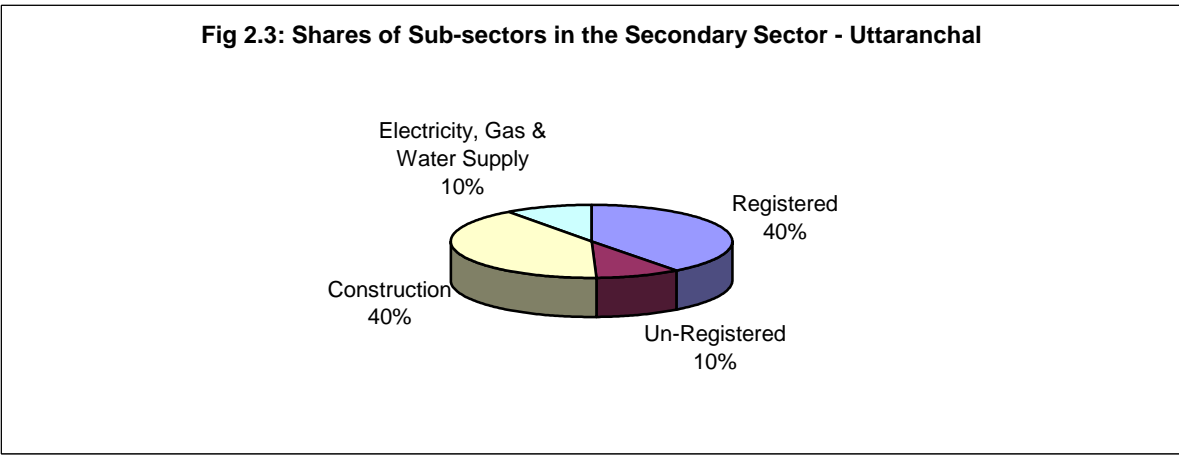
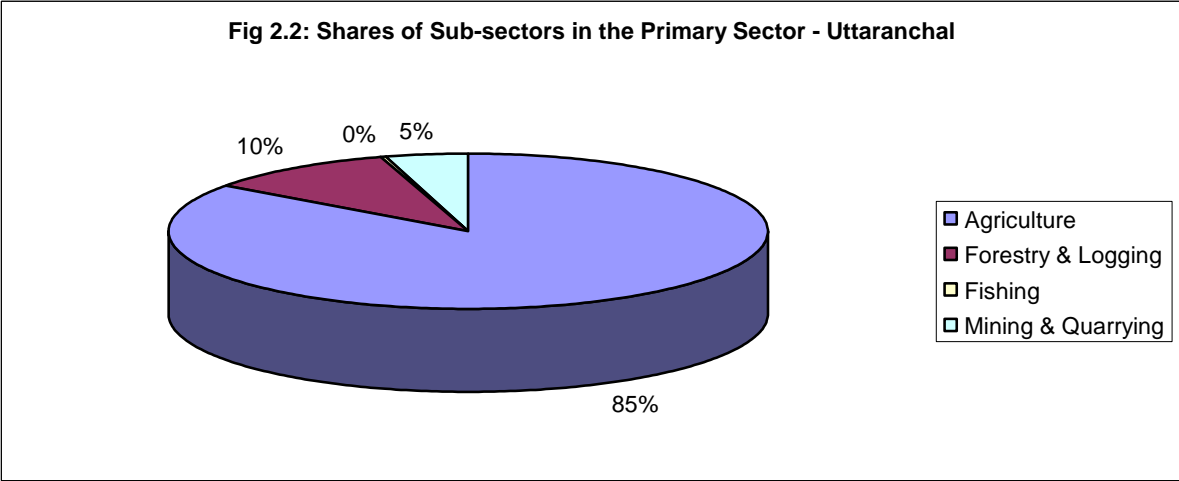
Table 2.2: Area, Production and Yield of Major Crops in Uttarakhand - 2005/06

Crop	Area (Ha)	Production (Qtl)	Yield (kg/ha)
Cereals	959632	15315727	1596
(i) Rice	293097	5639186	1924
(ii) Wheat	394805	6447166	1633
(iii) Barley	25448	175846	691
(iv) Maize	32622	441702	1354
(v) Manduwa	140113	1743006	1244
(vi) Sanwan	73547	871532	1185
Pulses	61190	351231	574
(i) Urad	10417	56043	538
(ii) Masoor	21488	108300	504
(iii) Peas (Mattar)	4761	32518	683
(iv) Gahat (Kulthi)	10755	67541	628
(v) Rajma	4014	27014	673
(vi) Gram	765	5164	675
(vii) Bhatt (Black Soyabean)	6641	42502	640
(viii) Other pulses	2349	12332	525
Oil Seeds	35041	297498	849
(i) Rape and Mustard	17824	116391	653
(ii) Seasmum (Til)	2346	12387	528
(iii) Groundnut	1550	15082	973
(iv) Soyabean	13321	153858	1155
Other Crops			0
(i) Sugarcane	100568	61346480	61000
(iii) Onion	1830	251479	13742

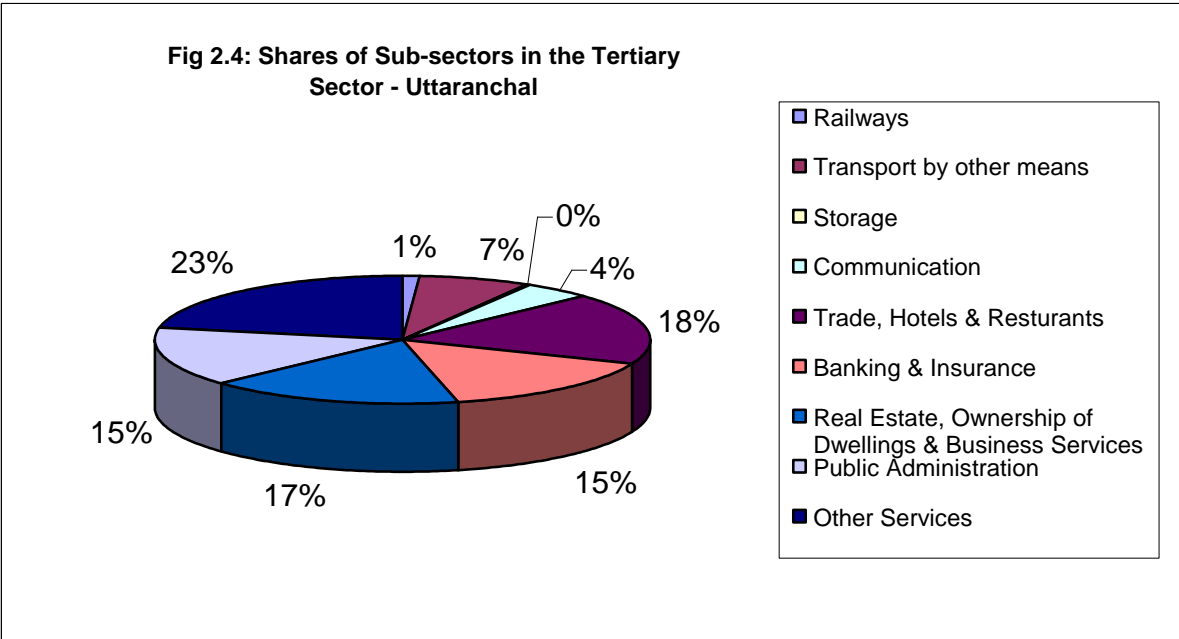
Table 2.3: Value of Agricultural Output in Uttarakhand as a Percentage of Uttar Pradesh

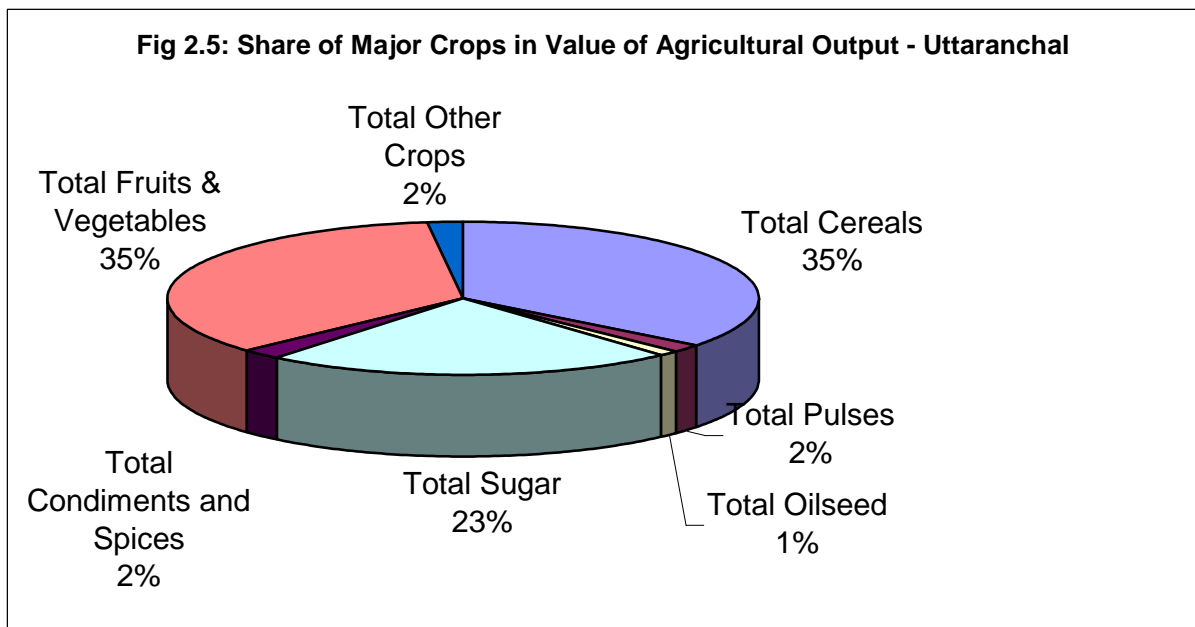
(%)

Crop	2001-02	2002-03	2003-04	2001-04
Paddy	5	5	5	5
Wheat	3	3	3	3
Cereals	5	4	4	4
Pulses	2	1	2	2
Oilseeds	1	2	2	2
Sugar	8	6	6	7
Condiments and Spices	28	23	23	24
Fruits & Vegetables	17	10	8	12
Total Value of Output in Agriculture	7	5	5	6
Livestock	11	10	6	9
Total Value of Output - Agriculture & Livestock	8	6	6	7



Source: Directorate of Economics and Statistics, Planning Department, Government of Uttaranchal





Source: *Statistical Abstract of India*

Women's status in Uttarakhand

The low level of agricultural and industrial development necessitates migration from the hills for survival. Young men generally migrate to plains in search of livelihood. Although migration of the entire family is the preferred option, it is not a feasible one. Therefore, young men often migrate alone leaving a truncated family of women, children and old behind. The lonely women look after the family, cultivate the land and take care of the children and the old. The physical isolation of the women is compounded by the emotional isolation from their husbands. *There is hardly any communication and when the men come home, they usually spend as much time as possible with their friends and fellow-villagers, often over the drinks* (Bose, 2000).

2.2 District Udham Singh Nagar

Udham Singh Nagar (USN) lies in the terai region of the southern rim of Himalayas. It is bounded in the north by Nainital and part of Pithoragarh districts, on the west by Bijnore district, on the south-west by Moradabad district and in the south by Rampur, Bareilly and Pilibhit districts. On the east it forms an international boundary with Nepal, the dividing line being the Sharda river. Total geographical area of the district is about 2911 sq. Kms and the administrative headquarters of the district is located at Rudrapur.

USN has been carved out of Nainital in 1995 (29 th September), comprising of four tehsils – Kashipur, Kichcha, Sitarganj and Khatima (Bhatt, 2003). The population of the district, according to the 2001 population census, is 1234548 persons comprising of 6490220 males and 585528 females. Rural population of the district is 831407 persons – 434162 males and 397245 females. Urban population is 403141 persons – 214858 males and 188283 females. The decennial population growth in the district has been substantially higher than that of the state. The average annual growth rate in population of the district has been 4.45% during 1981-91 and 2.78% during 1991-2001. The corresponding figures for the state of Uttaranchal are 2.42% and 1.92% respectively. The urban population as percentage of total population (33% in 2001) and the population density (149 in 1991 and 198 in 2001) are also substantially higher than that of the state. The corresponding figures for the state are 26%, 133 and 159 respectively. However, the district appears to fare poorly in terms of sex ratio. Sex ratio, as indicated by the the number of females per 1000 males, is

substantially lower in the district as compared to the state. In 1991 the district had 881 females per 1000 males as compared to 936 at the state level. In 2001, the corresponding figures are 906 and 964. The literacy profile of the district is slightly encouraging. The percentage of literates in the total population (excluding 0-6 age group) in 1991 was 49% with 60% of the males and 36% of the females being literate. The corresponding figures rose to 65%, 76% and 54% by the year 2001.

About 80 per cent of the total area is cultivable in the district, of which 67%, 73%, 35% and 27% of the area is irrigated in the four tehsils of Ksahipur, Kichcha, sitarganj and Khatima respectively. The irrigation network in the district includes canal and tubewells. A major canal is located at Ban Basa on Sharda river that irrigates a large area of the terai tract. As for agriculture in the district, cultivation is the main occupation. The most important crop is wheat followed by paddy. Maize, madua, barley, sawan, jowar-bajra are the other major foodgrains in that order. Masoor, gram and Urad are the main pulse crops of the district but grown in a small area. Sugarcane and potato are the main commercial crops.

The livestock population of the district mainly consists of cattle, buffaloes and sheep. Industries in the district are mainly agro-based. Extensive cultivation of sugarcane prompted many sugar mills to come up in this district. Bazpur, Kashipur and Kichcha sugar mills mainly use the sugarcane produced in the district. Two new sugar mills have also started production at Sitarganj and Gadarpur. Kashipur is fast emerging as an industrial hub in the district. Uttar Pradesh Textile Corporation has

set up cotton spinning mills at Kashipur and Jashpur. A unit of Hindustan Paper Corporation and a solvent extraction unit have also been established at Kashipur.

2.3 Sample Households

In our sample, landless constitute about 50 per cent (Table 2.4) of the households followed by marginal (29%), small (14%) and medium (8%). There is no household with more than 10 acres among the sample households.

The main occupation in the sample region is agriculture (Table 2.5) with about 21 per cent of the people being engaged in it, followed by petty business (13%), labour (12%), papadmaking (9%), dairying (5%), quilting (3%) and poultry (2%). About 1 per cent of the sample population is engaged in bee keeping and mushroom cultivation. It is noteworthy that nearly (21%) of the employable labour force is presently unemployed, as indicated by the 'No Work' category. This number is the same as that of agriculture, which employs the maximum number of people.

Analyzing the overall pattern of main or sub-occupation (Table 2.6), we see that in case of males, agriculture is the most common occupation (27%) followed by agricultural labour (17%), petty business (13%) and service (9%). Rest of the activities are engaged in by less than 10 per cent of the male population. In case of females, papadmaking is the most popular activity (19%), followed by dairying (13%), petty business (11%), quilting (9%), agriculture (8%), labour (6%), poultry (5%), mushroom cultivation (3%) and beekeeping (1%). Overall, agriculture

is the most important occupation (18%) followed by petty business (12%), labour (12%), papadmaking (11%), dairying (7%), service (5%), poultry (3%), mushroom cultivation (1%) and beekeeping (<1%). Significant proportion of the employable workforce is unemployed (17%) with 20 per cent of the men and 13 per cent women remaining without work.

The sample region is reasonably well endowed in educational attainment (Table 2.7). About 43 per cent of the population in the sample households have studied upto class 8 but below class 10, while 17 per cent fall in the category 5-7. Therefore, 60 per cent of the sample population has an educational attainment of class 5 or above but below class 10. Thus, a sizable proportion of the sample population is reasonably literate. The percentage of illiterates and semi-literates (below class 5) is about 31 per cent and that of high skill category (above class 10) is only about 9 per cent.

As for the basic economic characteristics (Table 2.8), 77 per cent of the sample households live in a pucca house, followed by those living in a wooden house (15%) and only 8 per cent live in a kutchha house. 96 per cent of the respondents live in own house and have electricity as the main source of power. However, it is significant that while 79 per cent of the sample households own TV set, only 58 per cent of the households own a radio set. This points to some change in relative importance of communication media, which needs to be factored in while propagating information on development and policy. Only 17 per cent of the sample households own a two wheeler and only 6 per cent own some other higher valued assets. Therefore, it may

be concluded from this section that the sample households are in general well equipped in basic amenities although the ownership of assets is only moderate.

The area operated (owned land + leased in land – leased out land) in the study region is about 0.7 hectares per household (Table 2.9). The households engaged in mushroom cultivation possess the largest operated area of 2.7 acres per household, followed by beekeeping (1.8), poultry (1.4) and dairying (1.1). Households engaged in quilting (0.6) and petty business (0.14) operate negligible area. Papadmaking households do not have farming activity and therefore do not operate any land. The entire operated area in the region is irrigated.

Overall, 81 per cent of the operated area is under paddy cultivation and about 69% is under wheat cultivation (Table 2.10). The yield of paddy is significantly higher (962 kg/ha) than that of wheat (557 kg/ha). The percentage of marketed surplus (to production) of paddy is also higher (90%) as compared to that of wheat (81%). Other minor crops grown in the region include berseem and chari.

Table 2.4: Distribution of Households by Area Operated

Size Group (Hectares)	No. of Households	% of Total
No Land	26	50
<= 1	15	29
1 – 2	7	13
2 – 4	4	8
>4	0	0
Total	52	100

Table 2.5: Distribution of Workforce by Main-Occupation (Total Sample Population)

Main Occupation	No. of Persons Age \geq15Yrs and \leq65 yrs	% of Total
Agriculture	31	21
Dairying	8	5
Labour	18	12
Poultry	3	2
Papad Making	14	9
Mushroom	2	1
Beekeeping	1	1
Quilt making	5	3
Petty Business	20	13
Service	8	5
No Work	31	21
Others	9	6
Total	150	100

TABLE 2.6: Proportion of Males and Females by Occupation

Occupation (Main or Sub)	Males	Females	Total
Agriculture	27	8	18
Dairying	3	13	7
Labour	17	6	12
Poultry	2	5	3
Papad Making	6	19	11
Mushroom	0	3	1
Beekeeping	0	1	1
Quilt making	0	9	4
Petty Business	13	11	12
Service	9	0	5
No Work	20	13	17
Others	4	14	8
Total	100	100	100

TABLE 2.7: Literacy Profile of the Sample Population(For Persons of age ≥ 15 and ≤ 65)

Education (yrs of schooling)	No. of Persons	% of Total
< 5	47	31
5 – 7	26	17
8 – 10	64	43
11 – 12	11	7
>12	2	1
No.of HHs without a single member ≥ 5	6	12

TABLE 2.8: Economic Characteristics of the Households

(% of total households)

	1	2	3	Total
Type of the House	8	77	15	100
Ownership of the House	96	4	0	100
Source of Power	96	4	0	100
Radio	58	42	-	100
T.V.	79	21	-	100
Two Wheeler	17	83	-	100
Other (Mention)	6	94	-	100

Note: Ownership: 1-Owned; 2-Rented; 3-free

Source of Power: 1-Electric; 2-Non-Electirc

Radio: 1-Yes; 2-No

TV: 1-Yes; 2-No

Two Wheeler: 1-Yes; 2-No

Other: 1-Yes; 2-No

TABLE 2.9 : Operated Land per Household (hectares)

Activity	Irrigated	Unirrigated	Total
Dairying	1.13	0.00	1.13
Poultry	1.40	0.00	1.40
Papad Making	0.00	0.00	0.00
Mushroom	2.70	0.00	2.70
Beekeeping	1.80	0.00	1.80
Quilt making	0.60	0.00	0.60
Petty Business	0.14	0.00	0.14
Overall	0.65	0.00	0.65

TABLE 2.10: Area, Production, Consumption and Marketed Surplus

0.65

P A D D Y

Activity	% Area under the crop	Yield (kg per ha)	% Cons to Production	% Marketed Surplus to Production
Dairying	68	873	12	88
Poultry	51	796	13	87
Papad Making	-	-	-	-
Mushroom	93	1152	10	90
Beekeeping	89	1000	6	94
Quilt making	100	1129	9	91
Petty Business	100	1030	12	88
Overall	81	962	10	90
W H E A T				
Dairying	64	521	31	69
Poultry	69	580	10	90
Papad Making	-	-	-	-
Mushroom	93	592	11	89
Beekeeping	100	400	27	73
Quilt making	22	640	6	94
Petty Business	100	730	4	96
Overall	69	557	19	81

CHAPTER 3

WOMEN'S ENTREPRENEURIAL ACTIVITIES – ANALYSIS AND RESULTS

This chapter presents the basic results of our analysis, based on the primary data survey. We have presented our results by the type of entrepreneurial activity. The sample households are mainly engaged in about seven activities-dairying, poultry, papadmaking, mushroom cultivation, bee keeping, quiltmaking and petty business. Papadmaking is by far the activity engaged in by most of the households (Table 3.1) - about 29 per cent of the sample households and 26 per cent of the sample population are dependent on it. It is followed by dairying (25%, 25%), petty business (19%, 21%), quiltmaking (12%, 11%), poultry (10%, 9%), mushroom cultivation (4%, 5%) and bee keeping (2%, 2%). Other activities in the region are basketry, mosaic printing etc.

Table 3.1: Households and Population by Entrepreneurial Activity

Activity	% of Sample Households	% of Sample Population	Av hh size	Av size of the Landholding (operated land)	Real income per capita (1999-00 prices)	% of SC & ST hhlds
Dairying	25	25	5	2.81	11783	8
Poultry	10	9	5	3.50	28975	40
Papad Making	29	26	5	0.00	5978	0
Mushroom	4	5	8	6.75	17566	100
Beekeeping	2	2	5	4.50	13802	100
Quilt making	12	11	5	1.50	8087	33
Petty Business	19	21	6	0.35	7390	50
Total	100	100	5	1.63	10765	25

Table 3.2: Women Population by Entrepreneurial Activity

Activity	% of Women in Sample Pop	No of Women per hhd	Average age of the woman entrepreneur	Average edn of the woman entrepreneur	% of HHlds with Trained Woman entrepreneur
Dairying	32	2	36	3	8
Poultry	25	1	34	5	80
Papad Making	32	2	39	3	0
Mushroom	33	3	35	10	100
Beekeeping	40	2	43	4	100
Quilt making	39	2	32	2	0
Petty Business	26	2	41	4	10
Total	31	2	37	4	17

3.1 Entrepreneurial Activities - A Brief Description of the Process

A brief description of some of the major entrepreneurial activities is as follows. For a summary description see Table 3.3

Bee-Keeping

Honey is a consumable product and is also used extensively in making ayurvedic medicines. Natural honey, which is obtained from honeybees, has a lot of potential demand. Bee keeping is a profitable economic activity and can provide regular income to rural communities particularly in the mountainous and hilly regions where farming is not a viable activity. Bee-keeping can help in augmenting incomes without devoting too many resources like land.

Bee-keeping needs to be carried out in locations where there is minimum human and vehicular movement. Forests and hilly regions are therefore suitable for this activity. Movable wooden frames with boxes are spread with honey spice and placed strategically to attract honeybees. These bees leave fresh honey, sucked from flowers, in the honeycombs provided in the boxes. When the cells are full, they are

hermetically sealed with wax and the honey is extracted from them. It is essential to receive proper training for extracting and bottling honey.

No major machinery is required for this activity and only small wooden frames with boxes are needed. A single box could cost about Rs 3000/-. A honey extractor and a manual bottle capping machine are also required which cost about Rs 5000/- and Rs 2000/- respectively. Therefore, a one-time investment of about Rs 10000/- is needed to start the activity. As per the standard norms, a box should collect about 240 kg of honey per annum. However, the yield depends on a variety of factors like location, flower varieties, climate etc and normally varies between 60%-80% of the normative yield (240 kg). Taking an average of 70%, the actual yield may be about 168 kg. At a conservative selling price of 90/- Rs per kg, the sales revenue comes to about Rs 15,120/-. The net income, after deducting the costs, therefore works out to Rs 5,120/- in the first year and about Rs 12,620/- (after accounting for maintenance costs) in the subsequent years. The income earned by our sample households is about Rs 14,300/-, which is close to the normative income.

Mushroom Cultivation

Mushroom cultivation requires no land and mushrooms can be grown in a house or a small hut. The activity can be taken up during that period of the year when farmers have less field work. The crop is of a short duration and at least two crops can be harvested per year. The production cycle normally runs for about 15 weeks – from the start to the finish. The following major steps are involved in the activity.

- a) Choosing a growing medium.
- b) Pasteurizing and sterilizing the medium.
- c) Seeding the beds with spawn (material from mature mushrooms grown in sterilized conditions).
- d) Maintaining optimum temperature, moisture and other conditions that favour growth. This is the most crucial step.
- e) Finally, harvesting, packaging and selling the product.

Mushroom cultivation does not require full time labour and family members can manage the activity after the farm work. Farmers, farm women and unemployed youth can undertake this activity and earn an annual income of about Rs 25000-35000 from two crops of 100 bags, as has been demonstrated in the Kangra region of Himachal Pradesh (Agricultural Technology Management Agency report). However, the activity requires training and support in the form of provision of compost and quality mushrooms and marketing facilities. This requires positive intervention by the government. The crucial importance of technical know-how and training is underlined in our sample region where the households practicing mushroom cultivation have earned a very meager income mainly because the farmers did not take multiple crops and therefore could barely cover the initial investment costs. This is due to the lack of awareness about mushroom farming which in turn is due to the lack of adequate training. The state government ought to intervene, either directly by providing compost, quality mushroom seeds and ensuring marketing arrangements or alternatively, by extending support to credible

NGO s and SHG s in the region to enable them to take up these activities. Some of the activities on the lines of Indo-Dutch Mushroom Project Palampur and ATMA project Kangra may be considered for replication, with appropriate modifications.

Papadmaking

Papads are the most popular adjunct in Indian diet. About 95% of the papad production in the country is in the household sector or cottage industries, through the traditional methods using the rolling baton (or ‘Belan’ popularly). Papdmaking in recent years has developed into a cottage and small-scale industry. The preparation of papad consists of making dough using pulse flour (preferably urad dal), salt, carbonates, spices and water. The dough is kneaded into small balls and pressed using the Belan. The pressed papads are then dried. The market for papads exists not only domestically but also internationally. Papads are now exported to about 40 countries from India. The major importing countries of Indian papads are UK, USA, UAE, Singapore, Oman, Nigeria, Malaysia, Kuwait, Canada, Behrain and Australia. In our study region, papadmaking is carried out in Gidpur village. Women are mainly engaged in making papads and the menfolk carry them on bicycles and sell them in the nearby villages.

Poultry

Poultry is a successful entrepreneurial activity in this region. This is the activity providing the highest per capita real income above the poverty line income of Rs 4043. The reason for the success of this activity is the better state intervention,

complemented by the local NGO s and SHG s. The poultry activity in the region is multi-layered and is broadly as follows.

The first tier is the parent farm and hatchery unit, set up at Pant Nagar, for the production of Kuroiler day old chicks (DOC). Kuroiler is a specific form of scientifically developed poultry that possesses all the attributes of the village chicken in terms of colour, hardness and capability to survive in scavenging conditions. No major changes are needed in the traditional husbandry practices. It has higher yield and egg production capacity as compared to traditional chicken. Kuroiler birds attain 1 kg body weight in about 60 days as compared to 240 days by traditional birds. Egg laying capacity is also significantly higher – about 180 to 200 eggs as compared to 40 eggs by the traditional variety in a one-year laying period.

The second tier is the ‘Mother Unit’ for breeding the DOC s, set up with the involvement of the SHG s and individuals, after giving hands-on training in breeding for about 3-4 weeks. By the end of this period, the started chicks (or growers) are capable of fending for themselves through scavenging.

The village vendors constitute the third tier in the network. Vending activity is an important link in the supply chain. Vendors pick up started chicks from the mother units and sell them to the village households. Vending and mother unit operation are important vocational activities in the region and can provide a net income of around Rs 4000 per month to each participant on a monthly turnover of 1000 birds.

Village household is the last tier in the network. Households purchase started birds for approximately Rs 25 and rear them in semi-scavenging conditions, as per traditional practices. The birds attain a body weight of about 1.5 kg in about 60 days and a fetch a price of around Rs 90. Female birds can be retained for egg production, if required. BPL (Below Poverty Line) households are provided started birds at a subsidized price of Rs 10 as part of special programmes. Sale proceeds from the first batch of marketable birds are generally adequate to generate enough working capital to continue the activity at market prices in subsequent rounds.

3.2 Entrepreneurial Activities - Broad Features of the Unit of Operation

Dairying (69%), papadmaking (100%), mushroom cultivation (100 %) and quilting (100%) are the activities, which are mainly carried out within the household premises (Table 3.5). The values in the parentheses indicate the percentage to the total households engaged in the activity. Poultry (20%), bee keeping (0%) and petty business (10%) are mainly carried on outside the house. Almost all the activities, except petty business, are carried out on owned accommodation. In case of petty business, own house is used in only 30 per cent of the households whereas 50 per cent of the households carry out the activity in rented accommodation and 20 per cent even used the public space like roadside and pavements. Almost all the activities are predominantly manual with a very minimal machine-based component. The average distance from which the raw material is procured is more than 5 kilometers for all the activities. In case of poultry, mushroom and petty business the distance is even greater than 10 kilometers. The

average distance of the output market is, in most cases, about 5 km. In case of poultry and bee keeping it is more

Table 3.3: Nature of the Entrepreneurial Activities Undertaken by Sample Households

Activity	Nature	Inputs	Equipment needed	Market	Paid-out Costs per Capita	Gross Returns per capita	Net Returns per capita (2004-05)	Real Net Returns per capita (1999-00 prices)
Dairying	Labour intensive	Feed, fodder and concentrates		Local	1257	4033	2776	2703
Poultry	Labour intensive	Feedgrains		Local / outside	19733	36917	17183	16732
Papad Making	Labour intensive	Urad dal, salt, carbonates, spices and water		Local / outside	18752	24033	5281	5142
Mushroom	Labour intensive	Spawn	Multi layered wodden beds	Outside	284	300	16	16
Beekeeping	Labour intensive	Honey spice	Wooden frames and boxes, honey extractor and manual bottle capping machine	Outside / local	1400	4260	2860	2785
Quilt making	Labour intensive	Yarn, thread and needles		Outside	80	1165	1085	1056
Shop	Labour intensive	Depends upomn the particular business		Local	11590	16876	5286	5147

than 10 km though. However, the marketing arrangements and networks for these activities are quite efficient and entrepreneurs can market the products through intermediaries.

The average time spent on entrepreneurial activity by the respondents is 6 hours per day, with papadmaking, quilting, dairying and petty business requiring more time than other activities. Maximum chunk of the time by women entrepreneurs is spent on the household work – about 8 hours per day on average (Table 3.6). In terms of proportion of time allocated to entrepreneurial activity (Table 3.7), petty business (56%) ranks first followed by quilt making (41%), papadmaking (39%) and dairying (32%). Incidentally these are the activities that also derive higher proportion of household income from entrepreneurial activity. It is notable that household work takes a major chunk of a woman's time across all activities.

A notable feature is that four activities – papadmaking (40%), mushroom cultivation (50%), quilting (50%) and petty business (60%) report low demand in the local market (< 2km). The activities that report very high / high demand in the local market are dairying, poultry and bee keeping (Table 3.8). As already stated, the higher demand reported for poultry and bee keeping reflects not local consumption but efficient operation of the marketing intermediaries for these activities whereas in case of dairying, it is mainly due to the nature of the product, which involves local consumption. It is surprising that respondents belonging to petty business report low demand in the local market. This may perhaps be a case of under-reporting by the respondents in this category.

3.3 Entrepreneurial Activities - A Comparative Economic Analysis

We shall now carry out a comparative economic analysis of the major entrepreneurial activities covered in our study - dairying, poultry, papadmaking, mushroom cultivation, bee keeping, quilting and petty business. The contribution of the entrepreneurial activity to total income, in relation to other activities like farming or wage labour, is calculated to assess the importance of the activity to the household income. Also, the level of source-wise income and the total annual income from all sources is compared with the poverty line income for the region to assess its adequacy in providing a reasonable level of economic well-being.

The real income is calculated in the following way CPIAL (1999-00=100) for Uttaranchal is first derived by using the CPIAL for All-India (1986-87=100), *Economic Survey, 2005-06*) and the Fisher price index of Uttar Pradesh relative to All-India (Deaton 2003, pp. 366). The income reported by the respondent households for the year 2004-05 is then converted into real terms by deflating with CPIAL for Uttaranchal (1999-00=100).

For instance, let the CPIAL for All-India with base year 1986-87 be denoted by $CPIAL_{AI}$ (1986-87=100). By shifting the base to 1999-00, let this become $CPIAL_{AI}$ (1999-00=100). Let the price index of Uttar Pradesh relative to All-India be 92.7 (Deaton, 2003). Then CPIAL for Uttaranchal may be derived as

$$CPIAL_{UT} (1999-00=100) = CPIAL_{AI} (1999-00=100) * 0.927$$

The reported income of the households (2004-05) is then deflated using this index to obtain the income at 1999-00 prices and the real income is then compared with the official poverty line income of Uttaranchal for the 55 th round (1999-00), which is Rs 4043 per capita per annum. .

In terms of contribution of entrepreneurial income to total household income (Table 3.9), papadmaking ranks first (86%) followed by petty business (70%), poultry (58%), dairying (23%) and bee keeping (20%). Quiltmaking and mushroom cultivation do not make sizeable contribution to the total family income. It is notable that only poultry, papadmaking and petty business provide entrepreneurial income above that of the poverty line income for the region, which is 4043 rupees per capita per annum (Table 3.12). It is therefore understandable that the households in these three activities derive a major portion (more than 50%) of the household income from entrepreneurial activity. In terms of the level of entrepreneurial income, poultry ranks first providing a real per capita annual income of Rs 16732, which is more than three times the second-ranking activity i.e. papadmaking. Petty business is also providing income above that of the poverty line. The remaining four activities i.e. dairying, mushroom, beekeeping and quiltmaking are providing much lower income when compared with the normative poverty line income. None of these activities is, therefore, viable when evaluated on this criterion.

Turning to farm income, the production (not just the marketed surplus) is valued at market prices and the paid-out costs (out-of-pocket expenses as reported by the households, excluding family labour and managerial costs) are deducted to obtain

the net income at 2004-05 prices. The real net income is derived by deflating this with $CPIAL_{UT}$ (1999-00=100). In terms of contribution of farming to the total household income (Table 3.9), mushroom ranks first (99%) followed by bee-keeping (80%), dairying (74%) and quilting (59%). Poultry and petty business derive less than 50% of the household income from farming. In terms of the level of farm income, mushroom ranks first followed by poultry, beekeeping, dairying and quilting (Table 3.10). Petty business households derive very little income from farming and none of the papadmaking households possesses any land.

As regards wage income (Table 3.11), quilting households derive a substantial proportion of the total household income from wage labour (28%). Other activities that derive sizeable income from wage labour are petty business (Rs 861), papadmaking (836) and poultry (779).

Coming to the total household income (Table 3.13) from all three sources i.e. farm income + entrepreneurial income + wage income, poultry households (Rs 28975) are way ahead of households in other activities. Poultry is followed by mushroom (17566), beekeeping (13802), dairying (11783), quilting (8087), petty business (7390) and papadmaking (5978). It is notable that households in all the activities are deriving income above that of the poverty line for the region. However, the entrepreneurial activity-wise shares of the family income, which is the main focus of this study, suggest that the activities like papadmaking, petty business, dairying and bee keeping are important activities for augmenting the family incomes and therefore, the constraints faced by the households engaged in these activities need to

be addressed immediately to improve the economic status of the households in the region.

3.4 Entrepreneurs - Perceptions, Problems and Suggestions

In this section, we shall analyse the assessment of the entrepreneurs of the support they received, their perceptions about the trade, the problems & constraints thereof and the suggestions for improvement. From a perusal of the Table 3.14, two observations are noteworthy. First, that none of the respondents has reported support in their trade from the government agencies. Second, the activity engaged in by the maximum number of sample households is the one receiving the least support from any source - papadmaking. From the table it is clear that the NGO's and SHG's provided much larger degree of support to the respondents than the institutional sources. As for the type of support received (Table 3.15), financial aid / loan appears to be the most important form of support followed by training and other technical help in trade. It is to be noted that provision of free / cheap raw material and marketing assistance are conspicuous by their absence. The little assistance that is reported in marketing is provided by the NGO's active in the region.

The respondents reported marketing problems mainly related to transport infrastructure namely, suitable vehicle and road (Table 3.16). The other problems relate to lack of marketing point in the vicinity in case of papadmaking and delay in payment by the middlemen in quiltmaking. Overall, it may be said that the households that are engaged in papadmaking, mushroom cultivation and quiltmaking have reported marketing-related problems.

When asked to list the factors that could impede the activity, the respondents mainly listed constraints related to marketing and infrastructure as the most binding for the entrepreneurial activity (Table 3.17). The respondents belonging to poultry and quilting listed availability of finance as one of the most important constraints. Technical constraints are found to be the most binding in mushroom cultivation and bee keeping activities. Infrastructure is listed as the most important constraint for dairying, poultry, and petty business activities. Marketing ranked as the most binding constraint for households belonging to poultry, mushroom cultivation and quilting. Other institutional factors like provision of raw material and credit institutions are listed as most important by respondents belonging to papadmaking.

Women are expected to face special problems in addition to the general problems listed above (Table 3.18). When the respondents were asked the list special problems faced by them, lack of time from household work and inability to market on their own have been listed by maximum number of respondents as the most common problems. Lack of time from household work has been listed as the most common problem by households in dairying, bee keeping and quilting. Inability to market on their own has been listed as most important by the respondents belonging to poultry, papadmaking, mushroom cultivation and petty business. Other problems like lack of help from family members (mushroom and petty business), lack of promotion by the government (poultry and papadmaking) are also listed as problems of considerable importance.

When asked to identify the single most crucial factor for entrepreneurship (Table 3.19), majority of the respondents (35%) have identified family support as most important factor. This was followed by marketing infrastructure (29%), timely supply of raw materials (8%), availability of credit (8%), product quality (6%), training (4%) and cheap labour (2%).

When the respondents were asked for their perception of the effect of entrepreneurial activity on the various attributes of the family, 90 per cent of the respondents have reported an increase in family income. In the remaining cases the income either decreased or remained unchanged (Table 3.20). Similarly, increase in family assets (69%), increased affordability of children's education (71%), decrease in drudgery at farm (46%), decrease in drudgery at household work (92%), increase in self-esteem (50%), increase in leisure (8%) and increase in respect for the family (75%) have been reported.

When quizzed about the effect of entrepreneurial activity on the status of the self (Table 3.21), a sizable majority of the respondents across activities have reported an increase in the quality of living. Similarly, majority of the respondents in all the activities have reported increase in respect for the entrepreneur in the family. As for respect in the village for the entrepreneur, nearly all the respondents have reported either an increase in respect or unchanged status. It is noteworthy that papadmaking and mushroom cultivation are the activities where the respondents have mainly reported unchanged status with respect to the above three attributes. This perception, in case of papadmaking, may be due to the inability of women to market papads on

their own, which in turn, reduces the visibility of their contribution to the family income. In case of mushroom cultivation, the reason is simple. The low level of income realized due to lack of awareness about the prospects (of taking multiple crops per year), appears to have led to a low level of satisfaction and self-esteem.

TABLE 3.5: Percentage of Households by Characteristics of Entrepreneurial Activity

Activity	Inside the Premises	Outside the Premises	Owned Unit	Rented Unit	Manual Operation	Machine Operated	Both	Avg. Dist. of source of Raw Material	Avg. Dist of the Market.
Dairying	69	31	100	0	100	0	0	6	1
Poultry	20	80	100	0	100	0	0	15	14
Papad Making	100	0	93	7	87	0	13	5	5
Mushroom	100	0	100	0	100	0	0	15	5
Beekeeping	0	100	100	0	100	0	0	8	15
Quilt making	100	0	100	0	100	0	0	6	6
Petty Business	10	90	30	50	80	10	10	10	0

TABLE 3.6: Average Number of Hours spent per Day by an Entrepreneur on Various Activities

Activity	Ent. Activity	Farm Work	Household Work	Total No of Hrs Spent
Dairying	5	2	8	15
Poultry	4	4	8	16
Papad Making	6	0	9	14
Mushroom	1	1	6	8
Beekeeping	3	2	10	15
Quilt making	6	1	7	14
Petty Business	8	0	7	15
Total	6	1	8	14

TABLE 3.7: Proportion of Time spent per Day by an Entrepreneur on Various Activities (as % of total hours)

Activity	Ent. Activity	Farm Work	Household Work	Total
Dairying	32	11	57	100
Poultry	27	23	50	100
Papad Making	39	0	61	100
Mushroom	13	13	75	100
Beekeeping	20	13	67	100
Quilt making	41	10	49	100
Petty Business	56	0	44	100
Total	39	7	55	100

TABLE 3.8: Proportion of HHs Reporting Demand in Local Market

Activity	Very High	High	Low
Dairying	62	38	0
Poultry	20	60	20
Papad Making	27	33	40
Mushroom	0	50	50
Bee Keeping	0	100	0
Quilt making	0	50	50
Petty Business	10	30	60

TABLE 3.9: Proportion of Total Annual Income by Category of Entrepreneurship (%)

(Net farm income +wage income + entrepreneurial income)

Activity	Farm Income	Entrepreneurial Income	Wage Income	Total
Dairying	74	23	3	100
Poultry	40	58	3	100
Papad Making	0	86	14	100
Mushroom	100	0	0	100
Beekeeping	80	20	0	100
Quilt making	59	13	28	100
Petty Business	19	70	12	100

TABLE 3.10: Farm Income of the Sample Households

(Rs per capita per Annum)

Activity	Value of Production	Paid-out Costs	Net Farm Income in 2004-05 (Value of Prod-PO Costs)	Real Net Farm Income (1999-00 prices)	Poverty Line Income for Uttarakhand (1999-00)
Dairying	12046	3088	8958	8722	4043
Poultry	13960	2188	11773	11464	4043
Papad Making	0	0	0	0	4043
Mushroom	21417	3393	18023	17550	4043
Beekeeping	17714	6400	11314	11017	4043
Quilt making	7382	2452	4931	4801	4043
Petty Business	1928	509	1419	1382	4043

TABLE 3.11: Wage Income of the Sample Households

(Rs per capita per Annum)

Activity	Income (2004-05)	Income (1999-00 prices)	Poverty Line Income for Uttarakhand (1999-00)
Dairying	368	358	4043
Poultry	800	779	4043
Papad Making	858	836	4043
Mushroom	0	0	4043
Beekeeping	0	0	4043
Quilt making	2290	2230	4043
Petty Business	884	861	4043

TABLE 3.12: Entrepreneurial (non-farm) Income of the Sample Households

(Rs per capita per Annum)

Activity	Income	Paid-out Costs	Net Income (2004-05)	Net Income (1999-00 prices)	Poverty Line Income for Uttaranchal (1999-00)
Dairying	4033	1257	2776	2703	4043
Poultry	36917	19733	17183	16732	4043
Papad Making	24033	18752	5281	5142	4043
Mushroom	300	284	16	16	4043
Beekeeping	4260	1400	2860	2785	4043
Quilt making	1165	80	1085	1056	4043
Petty Business	16876	11590	5286	5147	4043

TABLE 3.13: Total Income of the Sample Households

(Rs per capita per Annum)

(net farm income + wage income + net entrepreneurial income)

Activity	Aggregate Net Income (2004-05)	Aggregate Net Real Income (1999-00)	Poverty Line Income for Uttaranchal (1999-00)
Dairying	12101	11783	4043
Poultry	29756	28975	4043
Papad Making	6139	5978	4043
Mushroom	18040	17566	4043
Beekeeping	14174	13802	4043
Quilt making	8305	8087	4043
Petty Business	7590	7390	4043

TABLE 3.14: Percentage of Households Reporting Support in Trade

(% of Households)

Activity	% of Households Reporting support	Supporting Institution			
		Government	Bank	NGOs	SHG s
Dairying	62	0	23	31	0
Poultry	100	0	40	100	0
Papad Making	7	0	7	0	0
Mushroom	100	0	0	50	0
Beekeeping	100	0	100	0	0
Quilt making	0	0	0	0	0
Petty Business	30	0	10	0	10

TABLE 3.15: Percentage of Households by Type of Support

(% of Households)

Activity	Financial Aid	Loan	Subsidy	Training	Drudgery reducing machinery	Technical help in trade	Marketing Assistance	Others
	(1)	(2)	(3)	(4)	(6)	(7)	(8)	(9)
Dairying	0	38	0	8	0	23	8	0
Poultry	20	40	0	100	0	40	40	0
Papad Making	0	7	0	0	0	7	0	0
Mushroom	50	0	0	100	0	0	0	0
Beekeeping	100	0	0	0	0	0	0	0
Quilt making	0	0	0	0	0	0	0	0
Petty Business	10	20	0	0	0	10	10	10

TABLE 3.16: Percentage of Households Facing Difficulty in Marketing

Activity	% of Households facing some difficulty	Type of Difficulty			
		Suitable Vehicle	Proper Road	Market Fee	Delay in Payment
Dairying	0	0	0	0	0
Poultry	20	20	0	0	0
Papad Making	47	40	33	0	0
Mushroom	100	50	100	0	0
Beekeeping	0	0	0	0	0
Quilt making	50	50	33	0	33
Petty Business	20	0	0	0	0

TABLE 3.17: Most Binding Constraint Faced by the Household

(% of Households)

Activity	Financial	Technical	Infrastructure	Marketing	Institutional	Others
Dairying	31	23	38	0	0	0
Poultry	40	20	40	40	20	0
Papad Making	60	0	33	47	67	0
Mushroom	0	100	50	100	0	0
Beekeeping	0	100	0	0	0	0
Quilt making	67	17	50	67	17	0
Petty Business	10	0	30	10	0	0

TABLE 3.18: Women's Problems

(% of Households)

Activity	% of Households reporting Special Problem	Type of the Problem			
		Lack of time from household work	Lack of Help from Family Members	Lack of Promotion by Govt.	Others
Dairying	69	46	8	23	38
Poultry	60	0	0	40	0
Papad Making	67	27	0	33	27
Mushroom	100	50	50	0	0
Beekeeping	100	100	0	0	0
Quilt making	100	67	17	17	0
Petty Business	70	20	30	0	0

TABLE 3.19: Crucial Factor in Entrepreneurship

(% of Households)

Factor	% of Households Reporting as a Crucial Factor	% of Households Reporting as the most Crucial Factor
Support from family	79	35
Easy and timely supply of raw material	37	8
Cheap labour	8	2
Easy availability of credit from government	27	8
Marketing infrastructure	46	29
Quality of the product	31	6
Training	17	4
Others	13	10

TABLE 3.20: Effect of Entrepreneurial Activity on Family Status

(% of Households)

Perception	Increased	Decreased	Unchanged
Income	90	10	0
Assets	69	29	2
Children Education	71	29	0
Drudgery at Farm	10	46	44
Drudgery at Household	4	92	4
Self Esteem	50	50	0
Leisure	8	13	79
Respect in the Family	75	25	0

TABLE 3.21: Effect of Entrepreneurial Activity on Socio-Economic Status of the Woman

Entrepreneur

(% of Households)

Activity	Standard of living			Respect in the Family		Respect in the Village		
	Increased	Decreased	Unchanged	Increased	Unchanged	Increased	Decreased	Un-changed
Dairying	100	0	0	62	38	62	0	38
Poultry	80	0	20	100	0	100	0	0
Papad Making	53	0	47	73	27	27	0	73
Mushroom	0	0	100	0	100	50	0	50
Beekeeping	100	0	0	100	0	100	0	0
Quilt making	83	0	17	83	17	67	0	33
Petty Business	100	0	0	70	30	50	0	50

CHAPTER 4

CONCLUSIONS AND POLICY IMPLICATIONS

The entrepreneurial activities of the women in the study region, except poultry, are unable to yield even reasonable level (at least half of the poverty line income in the region) of income to the households. This is mainly because of the various constraints faced by the entrepreneurs, which are somewhat similar to the constraints faced by entrepreneurs in large parts of India (Kanitkar, 1994). In the light of the foregoing analysis and mainly on the express suggestions of the respondents during informal discussions, broadly the following problem areas and the appropriate corrective actions may be suggested (Table 4.1).

The constraints in case of dairying are mainly raw material (feed) and services (animal health) related. The government needs to ensure timely availability of dry fodder and concentrates to the dairy farmers and also the health services from veterinary doctors.

In case of bee keeping, the major constraints are the lack of technical guidance and marketing facilities. The participants in this activity are dependent mainly on the local NGO's and support from the government is minimal. The state can strengthen the NGO's and provide them the support needed so that more women in the region can take up this activity in right earnest.

Mushroom is mainly constrained on account of awareness problems. Ideally, three crops can be taken in a year with one time investment that could yield a much higher income. However, the sample farmer has taken only one crop, partly because of lack of awareness and partly due to sufficient income flowing from farming. The awareness problem needs to be corrected and more households should be encouraged to get into mushroom cultivation. However, provision of mushroom seeds and marketing of the product need to be ensured by the state to induce women to take up this activity on a larger scale.

Quilting, as practiced in the region, cannot be called an entrepreneurial activity in the strict sense of the word (Tripathy, 1985). Women mainly earn a wage for making the quilt while the raw material provision and marketing aspects are taken care of by the trader. However, the state may help in ensuring timely and reasonable payment by the traders to the women engaged in this activity. Another problem that the quilting is facing comes from the blanket industry. The synthetic fibre-filled quilts of the blanket industry, coupled with the frequent low production of cotton, has adversely affected traditional quilting. Quilting by hand is time-consuming and the people engaged in it are prone to diseases like asthma and TB due to inhalation of cotton fibres at the time of work. The government needs to ensure adequate health care facilities to the people engaged in this activity.

The households engaged in petty business face mainly credit (liquidity) constraints. Support from micro finance institutions and self-help groups (SHG) is crucial in this

regard. Government and the local institutions can play a major role in ensuring credit availability through these arrangements.

Women are mainly engaged in papadmaking and the men in the household carry them on bicycles and sell them in the nearby villages. The main constraint in this activity is related to marketing facilities, mainly due to lack of government support in marketing. If the marketing is collectivized through marketing cooperative and the papads are packaged properly (so as to maintain their crispiness and increase their shelf-life), they may fetch a much higher price and the entrepreneurs can earn much higher income from this activity. This becomes all the more important because the papadmaking households draw the major proportion of their income from this activity and have very few alternate sources of livelihood. State government may adopt/adapt successful models like 'Lizzat Papad' to make this activity economically viable.

Table 4.1: Summary of Constraints / Problems and the Proposed Corrective Action

S.No	Activity	<u>Problems/ Constraints</u>	Suggested Corrective Action	Agency
1	Dairying	Feed/fodder, animal health services	Provision of health care facilities.	Government
2	Beekeeping	Technical guidance and marketing facilities	Provision of training and developing marketing	Government/ NGO s
3	Mushroom cultivation	Technical guidance and marketing facilities	Provision of training and developing marketing	Government/ NGO s
4	Quiltmaking	Inadequate payment by the contractors, health problems.	Ensure timely & adequate payment, provision of health care	Government
5	Petty Business	Availability of finance	Credit provision through rural banks, development of SHG s and thrift groups	Government/ NGO s
6	Papadmaking	Availability of finance, marketing facilities	Credit provision through rural banks, SHG s and thrift groups; collectivizing marketing through co-operatives	Government/ NGO s

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