



Thirty Eight

# **ANNUAL PROGRESS REPORT**

(2015-16)

**DEPARTMENT OF AGRICULTURAL ECONOMICS  
EXTENSION EDUCATION & RURAL SOCIOLOGY  
COLLEGE OF AGRICULTURE  
CSK HP KRISHI VISHVAVIDYALAYA PALAMPUR**

**SEPTEMBER, 2016**

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**SEPTEMBER, 2016**

## **Preparation Committee**

First Draft (August, 2016): Dr. J S Guleria  
Dr M S Pathania

Ms. KaminiKapur

Second Draft (September, 2016): Dr. J S Guleria  
Dr M S Pathania

Final Approval (September, 30, 2016): DrDr S K Chauhan, HOD

## Acknowledgement

The Department of Agricultural Economics came into being in 1978 in the College of Agriculture, Himachal Pradesh Krishi Vishvavidyalaya, Palampur and was later renamed as Department of Agricultural Economics, Extension Education & Rural Sociology in January 2009. At present, this department is pursuing its triple mandate of teaching, research and extension activities. The undergraduate and postgraduate students are being educated and trained in different specialized areas of agricultural economics, extension education and rural sociology. These students go to join various prestigious research and developmental organizations/institutions in the capacities of scientists, administrators, bank officers and technocrats, etc. with a pledge to serve the society. As on June 30<sup>th</sup> 2016, there were thirteen faculty members (13Professors/ equivalent, 02 Asstt. Prof. / equivalent) in this department to look after various concerned teaching, research, extension and other related activities. Further, the faculty of this department are also involved actively in carrying out need based policy research through various *ad-hoc* research projects sponsored by ICSSR, DST and other agencies of Government of India and the Agriculture, Rural Development, Industries,IPH and Planning Department, Government of HP as well as through postgraduate research.

The research outcome of this department can be assessed from the number of completed and ongoing research projects, postgraduate theses as well as the various publications brought out in the form of research papers, extension articles, reports and manuals, etc. The faculty of this department has also acquired the membership of different professional societies viz Indian society of Agricultural Economics, Indian Society of Agricultural Marketing, Agricultural Economics Research Association in the country and participated in annual conferences, national seminars and regional workshops.

At the outset, I take this opportunity to express my sincere gratitude to the Hon'ble Vice Chancellor, Dr. Ashok K Sarial, Dr. K. K. Katoch former Vice Chancellor of the University for encouraging the staff members and interest taken in the overall development of this department. I am also thankful to Dr SSKanwar (Director Research), Dr P Mehta (Director, Extension Education), Dr. Dinesh Badiyala (Dean COA), Dr. S P Sharma Former Dean PG and Dr R K Agnihotri (Dean Postgraduate Studies), Palampur for their valuable guidance and support in strengthening teaching, research and extension activities of this department. I am also grateful to the Associate Directors of all the Regional Research and Extension Centers/ Stations for extending necessary facilities to their concerned social scientists from time to time. I am also thankful to all the faculty members of this department and outstation of the department for providing the required information and putting their dedicated efforts in bringing out this document. I express my deep sense of gratitude to the ICAR (NAIP), ICSSR, and New Delhi, the State Govt. for providing financial assistance to this department through research projects and evaluation studies. I am also thankful to entire office staff for providing technical and other support in this regard. Finally, I sincerely appreciate the earnest efforts made by Dr. J S Guleria, Dr. M S Pathania and Ms. Kamini Kapur in compiling and preparing this report in this presentable form.

Palampur

Head

Dated:

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## 1. Department at a Glance (2015-2016)

<b>1. General</b>	
Year of establishment of the Department of Agricultural Economics at CSKHPKV, Palampur	1978
The erstwhile Department of Extension Education & Rural Sociology merged with this Department and renamed as Department of Agricultural Economics, Extension Education & Rural Sociology	15.01.2009
Budget outlay for the Year 2015-16 (CroreRs.)	<b>1.97</b>
Expenditure (CroreRs.)	<b>1.53</b>
<b>2. Staff Strength (No.)</b>	
<b>(i) Faculty Position including Outstations (No.)</b>	
Head quarter	
Professor & equivalent	8
Out Stations and other colleges (Professor & equivalent)	5
Out Stations (Assistant Professor & equivalent)	2
<b>(ii) Technical Staff</b>	
Technical Assistant Gr-I	01
<b>(iii) Ministerial Staff</b>	
Section Officer (Vacant)	01
Sr. Assistant	01
Jr. Assistant/ Clerk	01
Peon	02
Chowkidar	01
<b>3. Teaching &amp; Postgraduate Research</b>	
<b>No. of courses taught at UG level</b>	
Agricultural Economics	14
Extension Education & Rural Sociology	7
<b>No. of courses taught at PG Level</b>	
Agricultural Economics	26
Extension Education & Rural Sociology	02
<b>4. No. of PG students in the Department</b>	
<b>Agricultural Economics</b>	
Students enrolment in M. Sc	16
Students enrolment in Ph. D	2
<b>Extension Education</b>	
Students enrolment in M. Sc.	---
<b>Postgraduate Degrees Awarded</b>	
M.Sc. (Agricultural Economics)	7
Ph.D (Agricultural Economics)	-
Degree in M.Sc. Extn. Education.	-
<b>5. Research</b>	
Total projects completed	9
Projects in operation	3
Research reports/mimeographs/bulletin/brochure	12
Research papers published Faculty Research	7
Master's Research	3
Doctoral Research	-
<b>6. Extension</b>	
Extension lectures delivered	37
Popular articles published	nil
Radio Talks	nil

## 2. Introduction

The Department of Agricultural Economics was initially created as a Centre for Postgraduate Studies in the Division of Economic Sciences, at Himachal Pradesh University (HPU), Shimla in 1971 to pursue teaching and research in the field of agricultural economics. Later on, this department was shifted to Palampur Campus in June 1978. When this campus acquired the status of Himachal Pradesh Krishi Vishvavidyalaya in November, 1978, the Department of Agricultural Economics became a vital component of this University. Since then, the department has been pursuing its threefold mandate of teaching, research and extension. The erstwhile Department of Extension Education was merged with this department and it was renamed as Department of Agricultural Economics, Extension Education & Rural Sociology in 2009.

The department imparts education to undergraduate and postgraduate students. The postgraduate students are trained in the various areas of field specialization of agricultural economics and extension education. The department has so far produced 30 Ph. D and 140 M.Sc. (including 20 in ext. education) students in its relevant field of specializations in Agricultural Economics and Extension Education. These students have opted and joined the various prestigious Organizations/Institutions in the capacity of administrators, scientists, technocrats, managers and other officers.

The faculty members of this department are actively involved in carrying out various evaluation studies, strategic and policy related research activities through a series of ad-hoc research projects as funded by ICAR (NAIP), State as well as Central Government and other developmental agencies. During the year under report, the department had **3** ad-hoc research projects in operation at the main campus. In addition, the **9** research project were completed and **3** projects were also sanctioned during 2015-16

The department has been playing a key role in designing and conducting need based and policy related research through multi-disciplinary research projects. The research outcome of the department can be assessed from a number of completed and ongoing research projects as well as a variety of publications brought out in the form of manuals, reports, research papers and popular articles published in the journals of repute. The faculty members have also obtained their membership of different professional societies in the country and participated in National/ Regional conferences and seminars, etc.

The department has also been equally engaged in its extension activities wherein the faculty members served as resource personnel and aptly executed the various extension programmes as organized by CSK HPKV, Palampur as well as other developmental agencies. During the year under report, the faculty of this department delivered extension lectures to progressive farmers/farm women/rural youth and other agricultural functionaries in different training programmes.

### 3. Staff Strength

The staff strength in the Department of Agriculture Economics and Scientists posted at various Research Stations & KVK's as on 30<sup>th</sup> June, 2015-16 is as under:

Sr. No.	Name of Scheme	Number and name of the Sanctioned Post	Name of Officer/ Official	Designation	Sanctioned post	Post filled up	Vacant post	Remarks
<b>I. Palampur Campus</b>								
1.	APL-010-18	Professor	-	-	1	-	1	-
		Three Associate Professor	Dr. HarbansLal	Professor	3	1	2	-
		Five Assistant Professor	Dr. S.K. Chauhan	Professor	5	4	1	-
			Dr.J.S. Guleria	Professor				
			Dr. Ashok Kumar	Professor				
			Dr. AnupKatoch	Professor				
		Section Officer		Section Officer	1	-	1	-
		Sr. Assistant	Mrs. SumanSood	Sr. Assistant	1	1	-	-
		Jr. Assistant/ Clerk	Sh. Joginder Kumar	Clerk	3	1	2	
		One Jr. Scale Steno	-	-	1	-	1	-
		One chowkidar	Sh.Babu Ram		1	1	-	
		Two Peon	Sh. Dharam Singh SmtLalita Devi *	Peon	2	2	-	<b>*adjusted against the vacant post of peon -</b>
2.	APL-061-18	Four Assistant Scientist promoted		Principal Scientist	4	3	1	



		as (Pr. Scientist under PPS/CAS)						
			Dr. Virender Kumar	Principal Scientist				
			Dr. K.D. Sharma	Principal Scientist				
			Dr. M.S. Pathania	Principal Scientist				
3.	APL-001-18	One Tech. Asstt. Gr.-I	MsKaminiKapur	TA Gr.-I (Home-Science)	1	1	-	
		Driver			1	-	1	

## II. Other Faculty/ Staff

Sr. No.	Name of the staff	Designation	Working Centre
1.	Dr. A.K. Chaubey	Principal Specialist Extension	DEE Palampur
2.	Dr.(Mrs.) BrijBala	Principal Scientist	Hill Agriculture Research & Extension Centre, Bajaura
3.	Dr. Manoj Gupta	Principal Specialist Extension	KVK, Dhaulakuan
4.	Dr. Rajesh Thakur	Professor	COVAS, CSK HPKV, Palampur
5.	Dr. Arvind Kumar	Principal Specialist Extension	KVK, Una
6.	Dr. D.S. Yadav	SMS	KVK, Mandi at Sundernagar
7.	Dr. GirishMahajan	SMS	KVK, Kangra

## 4. Budget Allocation and Expenditure (2015-16)

Sr. No.	Name of the Scheme	Budget outlay (Rs.) lakh	Expenditure (Rs.) Lakh
1.	APL-010-18 (Facilities for Establishment/ Teaching in the Department. of Ag. Econ.Ext. Edu. & Rural Sociology)	120.15	95.69

2.	APL-061-18 (Facility for Research in the Department of Ag. Econ. Ext. Edu. & Rural Sociology)	67.70	49.19
3.	APL-001-18 (Creation of Facilities for Post Graduate Studies in CSK HPKV, Palampur)	9.04	8.24
	<b>Total</b>	<b>196.89</b>	<b>153.12</b>

## 5. Departmental Committees

For the accomplishment of various departmental activities the following committees were constituted during the year under report:

Sr. No.	Name of committee	Position
1.	<b>Academic Committee</b> Dr. K.D. Sharma Dr. Virender Kumar DrHarbansLal	Convener Member Member
2.	<b>Research Committee</b> Dr. Ashok Kumar Dr. M S Pathania DrHarbansLal	Convener Member Member
3.	<b>Extension Committee</b> Dr.J.S.Guleria Dr.AnupKatoch	Convener Member
4.	<b>Annual Report Committee</b> Dr.J.S.Guleria Dr. M S Pathania Mrs. KaminiKapur	Convener Member Member
5.	<b>Labs,Class roomand Deptt. Library</b> Dr.Virender Kumar DrHarbansLal Mrs. KaminiKapur	PG Lab UG Lab Lib.and classroom
6.	<b>Web Page updating Committee</b> Dr.AnupKatoch Dr. M S Pathania	Convener Member
7.	<b>Staff Counsellor</b> Dr. AnupKatoch Dr. Virender Kumar	1 <sup>st</sup> Semester from July-Dec,2015 2nd Semester from Jan-June, 2016
8	<b>Coaching to Students for JRF/SRF/NET/ARS Examination</b> Dr. K.D. Sharma Dr. Ashok Kumar Dr.Virender Kumar	Convener Member Member
9	<b>Experiential Learning (Agri-Business Management Module)</b> Dr. S K Chauhan	Convener
10	<b>Store Verification cum Auction</b>	Dr.J.S.Guleria

	<b>Committee for obsolete articles</b>	Dr.AnupKatoch Mrs. KaminiKapur
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## 6. Teaching and Postgraduate Research

During the year under report, the following courses were offered to undergraduate and postgraduate students in the department as well as in constituent colleges of this university as part of their degree programmes.

### 6.1 Courses Taught

Semester	Course No	Credit Hrs.	Contact Hrs.	Name of teacher (s)
<b>Semester I</b>				
<b>UG Courses</b>				
	Ag Econ 111	2+0	2	Dr. Ashok Kumar
	Ag Econ 122 (O)	1+1	-	DrVirender Kumar
	Ag Econ 233	1+1	3	Dr. J.S.Guleria
	Ag Econ 355	1+1	3	Dr M S Pathania
	Ag Econ 477	1+2	5	Dr K D Sharma
	Ag Econ 478	1+3	7	Dr. HarbansLal Dr. Rajesh Thakur
	Ag Econ 479	1+2	5	DrVirender Kumar
	Ag Econ 4710	1+2	5	Dr S K Chauhan
	Soc 111	2+0	2	DrAnupKatoch
	Ext 121 (O)	2+0	-	DrAnupKatoch
	Ext 353	1+1	2	Dr. A K Chaubey
	Ext 475	1+2	5	Dr A K Chaubey MrVaibhavKalia
	FST 116	2+0	2	Dr Rajesh Thakur
	Tutorial	1+0	1	Concerned Tutors and UG Advisors
<b>PG Courses</b>				
	AG ECON 501	2+0	2	Dr. Ashok Kumar
	AG ECON 502	2+0	2	DrVirender Kumar
	AG ECON 505	2+1	4	Dr K D Sharma
	AG ECON 506	1+1	3	DrHarbansLal
	AG ECON 591	1+0	1	Dr S K Chauhan
	AG ECON 601	2+0	2	Dr. Ashok Kumar
	AG ECON 602	2+0	2	Dr. HarbansLal
	AG ECON 611	2+1	4	Dr. M S Pathania/ Dr.J.S.Guleria/

				Dr K D Sharma
	SOC 501	3+0	3	Dr. AnupKatoch
	AG ECON 599	1-18	-	Major Advisors
<b>Semester II</b>				
<b>UG Courses</b>				
	Ag Econ 111 (odd)	2+0	-	Dr. Ashok Kumar
	Ag Econ 122 (odd)	1+1	-	DrVirender Kumar
	Ag Econ 244	1+1	3	Dr. K D Sharma
	Ag Econ (355) (odd)	1+1	-	Dr M S Pathania
	VAE 321	2+1	3	Dr. Rajesh Thakur
	SOC 111 (odd)	2+0	-	Dr. AnupKatoch
	Ext 121	2+0	2	Dr. AnupKatoch
	Ext 242	1+1	3	Dr. A K Chaubey
	Ext 353 (odd)	1+1	-	Dr. A K Chaubey
	Ext 364	1+1	3	Dr. A K Chaubey
	Tutorial	1+0	1	Concerned Tutors and UG Advisors
	NCC	0+2	4	Dr. Ashok Kumar
<b>PG Courses</b>				
	AG ECON 504	1+1	3	Dr Ashok Kumar
	AG ECON 507	2+1	4	Dr S K Chauhan
	AG ECON 508	1+1	3	Dr. J.S.Guleria
	AG ECON 511	1+1	3	Dr K D Sharma
	AG ECON 513	2+0	2	DrVirender Kumar
	AG ECON 591	1+0	1	Dr S K Chauhan
	AG ECON 599	1-18	-	Major Advisors
	SOC 502	3+0	3	Dr. AnupKatoch
	AG ECON 603	2+1	4	DrHarbansLal
	AG ECON 604	2+1	4	Dr. Ashok Kumar/ Dr M S Pathania
	AG ECON 605	1+1	3	DrVirender Kumar
	AG ECON 699	1-18	-	Major Advisors

**6.2 Teaching innovations** (audio visual aids, methodology & manuals, etc.):

Shifted to e-teaching in respect of course AG ECON 605

**6.3 PG Research:**

**6.3.1 Postgraduate enrolment**

Sr. No.	Name	Admn no.	M.Sc./Ph.D	Major Advisor
<b>Continuing Student</b>				
	JayantRatna	A-2013-40-03	Ph.D	S K Chauhan
	Akanksha	A-2014-40-003	Ph.D	Dr. K D Sharma
	AbishekChandel	A-2013-30-009	M.Sc	DrManoj Gupta
	AditiWalia	A-2014-30-06	M.Sc.	Dr.Rajesh Thakur
	Anju Thakur	A-2014-30-007	M.Sc.	Dr. Ashok Kumar
	ArushiVyas	A-2014-30-008	M.Sc	Dr. KD Sharma
	Megha Rattan	A-2014-30-009	M.Sc.	Dr.S K Chauhan
	NehaJamwal	A-2014-30-010	M.Sc.	DrVirender Kumar
	Pryanka	A-2013-30-011	M.Sc.	Dr. Ashok Kumar
	RuchikaSuppahiya	A-2014-30-012	M.Sc.	Dr. J.S.Guleria
	Sonali Sharma	A-2014-30-013	M.Sc	M S Pathania
	UtpalenduDebanath	A-2014-30-014	M.Sc.	DrVirender Kumar
	Vikalp Sharma	A-2014-30-015	M.Sc.	DrHarbansLal
<b>Fresh Student</b>				
	Divya Sharma	A-2015-40-006	Ph.D	DrVirender Kumar
	MsArti	A-2015-30-022	M.Sc	Dr. KD Sharma
	JyotiChoudhary	A-2015-30-023	M.Sc.	DrHarbansLal
	Kanika Mehta	A-2015-30-024	M.Sc.	Dr. J.S.Guleria
	ManjuChottani	A-2015-30-025	M.Sc.	DrM S Pathania
	Sultan	A-2015-30-026	M.Sc.	Dr.S K Chauhan

### 6.3.2 Synopsis seminars

Sr. No	Name of the student	Thesis topic	Date of synopsis seminar
1	Sultan A-2015-30-026	Post-Harvest Losses in Marketing of Vegetables in ChhotaBhangalArea of District Kangra, H.P	28.11.2015
2	Ms. Arti A-2015-30-022	A Study on Regulatory Mechanism and Performance of Principal Market Yard Kangra in Himachal Pradesh	05.12.2015
3	JyotiChoudhary A-2015-30-023	Economic Efficiency of Marketing Vegetable Commodities in Regulated Market, Baijnathof District Kangra, HP	19.12.2015
4	Kanika Mehta A-2015-30-024	Economic Analysis ofTomato and Capsicum under protected and open environment in Kangra block of Distt.	19.12.2015

		Kangra, HP	
5	Manjuchottani A-2015-30-025	Economic Viability of Fish Co-Operative Societies and Livelihood Status of Their Members Fishermen in Pong Dam Reservoir of District Kangra, Himachal Pradesh	19.12.2015
6	Divya Sharma A-2015-40-006	Economic Analysis of Prevailing Farming Systems in Himachal Pradesh	26.12.2015

### 6.3.3. Credit seminars

Sr. no.	Name of Student	Title of the seminar	Date
1.	NehaJamwal A-2014-30-010	Wheat Cultivation In India-Trends And Determinants	28.11.2015
2.	Vikalp Sharma A-2014-30-015	AstudyOf Estimating Demand Supply Gap Of PATANJALI Products In Palampur Market	19.12.2015
3	PryankaA-2014-30-011	Farm Mechanization And Drudgery Of Women With Reference To ChimalHaar Village In Palampur	19.12.2015
4	AditiWalia A-2014-30-006	Post Harvest Management Of Fruits And Vegetables- A Case Study Of SagoorVillage In BaijnathBlock Of HP	26.12.2016
5	ArushiVyasA- 2014-30-008	Agricultural Education in India with Special Reference to CSKHPKV,Palampur	26.12.2015
6	UtpalenduDebnath A-2013-30-014	Rural Development in India-How MNREGA has Been Effective in The Economic Development of BPL Households inBharmatVillage of PanchrukhiBlock?	02.01.2016
7	RuchikaA-2014-30-012	Regulated Market in India With Reference to Fruits And Vegetables Regulated Market Yard, Palampur	02.01.2016
8	Sonali Sharma A-2014-30-013	Role of Information Communication Technology in Agricultural Development	02.01.2016
9	Anju Thakur A-2014-30-007	Historical Overview of Agricultural Economics with Reference to Discipline of Agricultural Economics, COA, Palampur	02.01.2016
10	Megha Rattan A-2014-30-009	Water Resources Exploitation of Major Rivers and Their Influence on the Reservoir Fisheries of Himachal Pradesh	23.04.2016
11	Sultan A-2015-30-026	Historical Overview of Agricultural Economics with Reference to Discipline of Agriculture Economics, COA Palampur	07.05.2016

### 6.3.4. Thesis seminars

Sr. no.	Name of The Student	Title of thesis	Date
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1	KiranLata A-2013-30-014	Impact of Mahatma Gandhi National Rural Employment Guarantee Scheme (MNREGS) on Employment and Income : A Case Study	04.07.2015
2	Vishal Rana A-2013-30-016	Technological Gaps in Management of Protected Cultivation in Kangra District of Himachal Pradesh	04.07.2015
3	AditiRaina A-2013-30-010	An Economic Analysis of Farm Mechanization in Kangra District of Himachal Pradesh	04.07.2015
4	GurrallaAnil Kumar A-2013-30-013	Economic Valuation of Natural Resources: A Case Study of Pong Dam Wetland in Himachal Pradesh	25.07.2015
5	Ms. Divya Sharma A-2013-30-011	A Study on Operational Mechanism and Performance of Kisan Credit Card Scheme in Kangra District of Himachal Pradesh	01.08.2015
6	ParikaSapehiya A-2013-30-015	An Economic Analysis of Production and Marketing of Potato Farming in NagrotaBagwan	01.08.2015
7	UtpalenduDebnath A-2014-30-014	A Spacio-Temporal Study of Livestock Economy of Himachal Pradesh	14.06.2016
8	Anju Thakur A-2014-30-007	A Case study of Bhutti Weavers Co-operative Society Limited in KulluDistrict. of Himachal Pradesh	14.06.2016
9	Megha Rattan A-2014-30-009	Economic Analysis of Bivoltine Cocoon Production in Bilaspur District. of Himachal Pradesh	21.06.2016
10	PryankaChaudhary A-2014-30-011	Impact Analysis of Gahlian Micro Watershed in Kangra District of HP	21.06.2016
11	Ms. ArushiVyas A-2014-30-008	Economic Analysis of Irrigated Cropping System– A Case Study of Lower BaijnathKuhl in Kangra District.	25-06-2016
12	Sonali Sharma A-2014-30-013	Impact of Migration on Natural resources productivity in Changar Area of DisttKangra,HP	25-06-2016
13	Ruchika A-2014-30-012	Economic Analysis of COLOCASIA in Amb Block of Una District in HP	28.06.2016
14	NehaJamwal A-2014-30-010	EconomicAnalysis of Tea Poduction in Himachal Pradesh.	28.06.2016
15	AditiWalia A-2014-30-006	Impact of Stray and Wild Animal Menace on Farm Economy in Kangra	29.06.2016
16	Vikalp Sharma A-2014-30-015	Economic Analysis of Production and Marketing of Potato in Kangra0 District. of Himachal Pradesh	29.06.2016

#### 6.4. PG students guided as Major Advisor

##### 6.4.1

Title of the Research Problem	Impact of Mahatma Gandhi National Rural Employment Guarantee Scheme (MNREGS) on employment and income : A case study
Name of student	KiranLata

Admission No.	A-2013-30-014
Degree awarded	M.Sc.
Major Advisor	Dr. Virender Kumar
Date of thesis submission	July 21, 2015
Date of thesis viva-voce examination	Oct 7, 2015
<b>Objectives</b>	<ol style="list-style-type: none"> <li>1. To examine the various processes for effective execution of the scheme.</li> <li>2. To examine the impact of MNREGS on employment and income.</li> </ol>
Methodology (study area)	<p>The study was based on a random sample of 60 MNREGS beneficiary households and 30 non beneficiary households from Chandropa Panchayat of Panchrukhi block of Kangra district of Himachal Pradesh. Both secondary and primary data were collected on scientifically designed and pre-tested schedules by interview method. The collected data were tabulated and analyzed to workout averages, percentages and ratios to study the impact of scheme on employment and income.</p>
Main findings	<ol style="list-style-type: none"> <li>1. The socio-economic profile of sample households revealed that among beneficiaries scheduled castes constituted the highest percentage (55 per cent) followed by other backward classes (30 per cent) and general (around 12 per cent). The scheduled tribes accounted for 3 per cent. Further, among beneficiary households around 72 per cent belonged to BPL (below poverty line) category and 28 per cent belonged to APL (above poverty line) category.</li> <li>2. All the mandatory guidelines of the scheme were being followed except for payment of wages on weekly basis and workdays for complete 100 days. The reason for this gap being untimely release of funds from Programme Officer to the Panchayat to meet the wage payment of MNREGS workers.</li> <li>3. On an average an increase of 78.47 per cent was noticed in the employment pattern of beneficiary households with 1.44 members employed per household without MNREGS which increased to 2.57 members per household with MNREGS. It was also observed that average annual income of beneficiary households without MNREGS was Rs. 1,15,683 which increased to Rs. 1,29,901 with MNREGS showing an increase of 12.29 per cent in the income of beneficiaries.</li> <li>4. Without MNREGS average annual consumption expenditure on food items by the beneficiary households was Rs. 32,281 which increased to Rs. 33,476 with MNREGS showing an increase of 3.57 per cent. On the other hand for non-food items without MNREGS the expenditure was Rs. 39,790 which</li> </ol>



	<p>increased to Rs. 69,968 with MNREGS indicating an increase of 43.13 per cent.</p> <p>5. On an average 84 person days were generated under the scheme in the Panchayat which was much higher than the national average (35 days, 2013-14) and also the person days generated in the state (41 days, 2013-14). Women participation rate was observed to be 100 per cent which is much higher than the provision of employment for women (33 per cent) under the scheme.</p>
Policy and Suggestions ( Brief and Numbered)	<p>1. Emphasis should be given on adequate and sustained regular flow of funds. Efforts should be made for timely payment of wages to the workers.</p> <p>2. There is a need to increase the wages and workdays from the current stipulated levels. There is need to strengthen Gram Panchayat bodies for proper identification, execution and monitoring of works under MNREGS. Grievances redressal mechanisms should be strengthened.</p>
Title of the Research Problem	A study on operational mechanism and performance of kisan credit card scheme in Kangra District of Himachal Pradesh
Name of student	Ms. Divya Sharma
Admission No.	A-2013-30-011
Degree awarded	M.Sc.
Major Advisor	Dr. K.D. Sharma
Date of thesis submission	17-08-2015
Date of thesis viva-voce exam.	4-09-2015
Objectives	<ol style="list-style-type: none"> <li>1. To study the progress and achievements of Kisan Credit Card scheme in Himachal Pradesh.</li> <li>2. To examine the acquisition, use and repayment pattern of credit availed under the scheme.</li> <li>3. To examine factors for adoption of the scheme along with difficulties faced and suggest suitable measures to promote the scheme for longer interests of farmers in the state</li> </ol>
Methodology (brief)	The study was carried out in Bhawarna block of Kangra district of Himachal Pradesh. Two-stage stratified sampling design was employed for the selection of eight villages and 50 sample farmers. A sample of 50 KCC holders (24 small, 13 medium and 13 large) was selected through proportional allocation method. In addition, a sample of 30 non-KCC holders was also selected randomly with at least 3 non-KCC holders from each selected village. Primary data were gathered for agricultural year 2013-14.
Main Findings	1. Number of KCCs issued in Himachal Pradesh has increased from 11,107 in 2000-01 to 5,84,568 in 2013-14 with a

	<p>significantly high growth rate of 27.13 per cent per annum and the amount sanctioned under the scheme has increased from Rs. 2,740 lakh in 2000-01 to Rs 2, 66,031 lakh in 2013-14 with impressive growth rate of 69.01 per cent per annum growth.</p> <p>2.Land utilization pattern showed that the average size of land holding in the study area was quite low i.e. 0.46 hectare per farm. Major proportion of the cultivated area was irrigated. Paddy, wheat and potato were the major crops. The average yield of paddy, wheat and potato was 36.15 q/ha, 35.37 q/ha and 122.07 q/ha, respectively. Total cost of cultivation of paddy, wheat and potato came out to be Rs. 31,288, Rs. 29,661 and Rs. 1, 23,453 with net returns of Rs. 15,707, Rs. 12,783 and Rs. 25,031 per hectare, respectively.</p> <p>3.Average credit limit sanctioned for small, medium and large farms was Rs. 21,792, Rs. 50,385 and Rs. 1, 20,231, respectively and the average amount borrowed by these categories came out to be Rs. 19,083, Rs. 45,885 and Rs. 99,615, respectively.Small farmers used relatively higher proportion of loan for purchase of agricultural inputs while large farmers used higher proportion for purchase of implements and machinery. The medium category utilized higher proportion of loan for repairs of farm building/sheds and meeting out the expenses of social ceremonies.</p> <p>4.Total cost of credit came out to be Rs 2,358 per farm. Contrary to this, the cost of borrowing came out to be as high as 12.04 per cent for non-KCC farmers. The overall amount of loan outstanding was estimated to be Rs.29, 625 per farm and 41.51 per cent of the total amount borrowed was repaid by the farmers.</p> <p>5.There was significant increase in the income from crops for KCC farmers over non-KCC farmers. The farmers reported that the lengthy and tedious paper work, inadequate credit limit, higher interest rate on overdue loan and denial of credit in case of irregular repayments were the major problems.</p>
<p>Policy and suggestions (brief and numbered)</p>	<ol style="list-style-type: none"> <li>1. Due to low cost and flexible/hassle free delivery, the scheme should be extended to all the cultivators, landless farmers, agricultural labourers and rural artisans. For this, awareness campaign needs to be initiated to popularise this credit delivery system.</li> <li>2. The credit limits of the KCC farmers need to be revised every year keeping in view the increase in input prices.</li> </ol>

	Besides land holding, possession of dairy/sheep/goat herds and farm enterprises should also be taken into consideration while determining credit limit so that landless labourers, rural artisans and women entrepreneurs can also avail the credit under KCC scheme.
Title of the Research Problem	Economic valuation of natural resources: A case Study of Pong dam wetland in Himachal Pradesh
Name of student	A Gurrala Anil Kumar
Admission No.	A-2013-30-013
Degree awarded	M.Sc.
Major Advisor	DrM.S.Pathania
Date of thesis submission	August 14, 2015
Date of thesis viva-voce exam.	Oct 7, 2015
Objectives	<ol style="list-style-type: none"> <li>1. To study the socio economic conditions and estimate the benefits accruing from wetlands to farm households.</li> <li>2. To study the causes of wetlands degradation and awareness level for sustainable conservation.</li> </ol>
Methodology (brief)	Two-stage sampling design was employed for the selection of sample. At first stage sample of eight villages were randomly selected from the Pong dam wetland. At the second stage the sample of ten households was drawn from each selected village randomly. The sample consists of 80 households. The primary data were collected on well designed pre tested schedule through survey method for the agriculture year 2013-14. The suitable analytical tools were employed to analyse the data.
Main findings (brief and numbered)	<ol style="list-style-type: none"> <li>1.The average family size of sample households was 6.18 persons. The main occupation of head of sample households was agriculture followed by fishery.</li> <li>2.Average land holding of the sample household was 0.39 hectare and 96.39 per cent of cultivated area was unirrigated.</li> <li>3.The time spent for grazing of animals on the wetland was noted 2.95 hours per day per farm. The total quantity of grasses consumed by animals per farm during grazing was 1038.69 kg from wetland, 749.06 kg from CPR lands and 972.78 kg from own land.</li> <li>4 The respondents accrue benefits from wetland. The major benefits from wetland were fodder collection, grazing, crop farming and fishing.</li> <li>5. The net income obtained by fishermen from fishing was Rs.49004 per annum. The average fish catch per day was about 2 kg.</li> <li>6.The estimated income contribution to the sample households from wetland accounted for 59.65 per cent of the total farm income.</li> </ol>
Policy and suggestions (brief and numbered)	1 There is a need of sustainable use and management of the wetland

	2.Awareness through education should be provided among farming community with respect to the harmful effects on wetland and management issues.
Title of the Research Problem	Technological Gaps in Management of Protected Cultivation in Kangra District of Himachal Pradesh
Name of student	Vishal Rana
Admission No.	A-2013-30-016
Degree awarded	M.Sc.
Major Advisor	Dr. BrijBala
Date of thesis submission	4.8.2015
Date of thesis viva-voce exam.	11.9.2015
Objectives	<ol style="list-style-type: none"> <li>1 To study capital investment, input use pattern and economics of major crops under protected cultivation.</li> <li>2 To examine technological gaps and suggest suitable measures to harness production potential of crops under protected cultivation.</li> </ol>
Methodology (brief)	<p>Kangra district of Himachal Pradesh was purposively selected for the study. Two-stage sampling design was employed for the selection of sample. Two blocks of the district namely Kangra and Bhawarna were selected and then a sample of 60 growers was selected by proportional allocation method. The selected farmers were post stratified into two categories on the basis of the size of the polyhouses: small (&lt;250 m<sup>2</sup>) and large ≥250 m<sup>2</sup>). Thus, 27 large and 33 small growers were selected. Primary data were gathered by survey method for the agricultural year 2013-14. Suitable analytical framework was used for the analysis of data.</p>
Main findings (brief and numbered)	<ol style="list-style-type: none"> <li>1. Only 38 per cent of the farmers had genuine interest behind the installation of polyhouses.</li> <li>2. The average productivity per 100m<sup>2</sup> of capsicum, tomato and cucumber was 6.74q, 7.12 q and 9.99 q, respectively which was much below the maximum attainable yield in the study area.</li> <li>3. The gross as well as the net returns per 100 m<sup>2</sup> area were maximum for capsicum followed by tomato and cucumber on both the categories of farms.</li> <li>4. Significantly high gaps were observed in the management practices like seed and soil treatments, pinching/pruning, spacing and plant protection on different crops on both the categories of farms.</li> <li>5. Negative gaps were observed in case of the inputs viz., seed, seedlings, composts, nitrogenous fertilizers, MOP and plant protection chemicals on different crops indicating excess use by average farmers.</li> </ol>

	6. The study revealed that rather than input use gaps, the faulty management practices, faulty construction/design of polyhouse and scant attention of farmers towards the precautionary measures were more responsible for yield gaps.
Policy and suggestions (brief and numbered)	<ol style="list-style-type: none"> <li>1. Efficient advisory services should be made available to the farmers at their door steps to tackle various insect pest and other problems related to protected cultivation.</li> <li>2. There is an utmost need to standardize crops and cropping systems so that the polyhouse is utilized to its optimum capacity throughout the year.</li> <li>3. The polyhouses should be brought under insurance cover to make the scheme more sustainable in future.</li> </ol>
Name of the student	Divya Sharma
Admission No.	A-2013-30-012
Degree awarded	M.Sc.
Major Advisor	DrAshok Kumar
Date of thesis submission	10.08.2015
Date of thesis viva-voce exam.	10.08.2015
Title	Production and marketing of mushroom in Mandi district of Himachal Pradesh
Objectives	<ol style="list-style-type: none"> <li>1. To work out economics of mushroom production and technological gap on different categories of sample farms</li> <li>2. To identify marketing system and efficiency of the mushroom marketing</li> <li>3. To identify problems and constraints in mushroom production and suggest ways and means for promoting the mushroom production</li> </ol>
Methodology	The study was conducted in Mandi district of Himachal Pradesh. Two-stage random sampling technique was employed for the selection of sample households. A sample of 60 growers was selected by proportional allocation method. Primary data were gathered on pre-tested and well designed schedule by survey method for agricultural year 2012-13.
Major findings	<ol style="list-style-type: none"> <li>1. The fixed cost of production / 100 bags for one crop of button mushroom varied from 44.47 per cent on small units to 22.42 per cent on large units. The variable cost varied from 55.53 per cent on small units to 77.58 per cent on large units implying the economical use of fixed and variable resources by large growers.</li> <li>2. The gross returns per 100 bags basis ranged between Rs. 37,200 and Rs 40,200 on small and large units for one crop of button mushroom and overall net returns were Rs 15,953.</li> </ol>

	<ol style="list-style-type: none"> <li>3. The overall net returns per kg from one crop of button mushroom were Rs 48 and the overall benefit-cost ratio for one crop of button mushroom was 1.87:1. The overall net returns per compost bag from one crop of button mushroom were Rs 160.</li> <li>4. Break-even output for one crop of button mushroom varied from 279 kg to 147 kg for small and large growers and break-even point was at 93 and 42 compost bags for small and large growers respectively.</li> <li>5. The marketable surplus was 1.7q/ farm for small growers and 10.93 q/farm for large growers and the marketed surplus was 1.35 q/farm for small growers and 10.34q/farm for large growers.</li> <li>6. The mushroom growers faced production, marketing, financial and institutional problems. However, the intensity of the production problems was much higher than others and insect-pest attack and incidence of diseases was the most serious problem.</li> </ol>
Suggestions and policy implications	<ol style="list-style-type: none"> <li>1. Department of Horticulture should develop an efficient system of testing for ensuring the supply of quality spawned compost bags timely to the growers at their doorsteps.</li> <li>2. To reap the benefits of mushroom growing the mushroom entrepreneurs must keep at least 60 compost bags.</li> <li>3. Emphasis should also be laid on post-harvest value addition and the package of practices on mushroom production should be made available to the mushroom growers</li> </ol>
Name of the student	Parika Sapehiya
Admission No.	A-2013-30-015
Degree to be awarded	M.Sc.
Major Advisor	Dr J S Guleria
Date of thesis submission	13.08.2015
Date of thesis viva-voce exam.	08.10.2015
Title	An economic analysis of production and marketing of potato farming in Nagrota Bagwan
Objectives	<ol style="list-style-type: none"> <li>1. To study the economics of potato cultivation and examine the technological gap.</li> <li>2. To study the marketing system in the study area.</li> <li>3. To examine the problems and constraints faced by the farmers in the study area.</li> </ol>
Methodology	The study was based on both primary and secondary data. Primary data were collected from a representative sample of 60 potato growers in Nagrota Bagwan block of Kangra district of

	<p>Himachal Pradesh on well designed pre-tested schedule by personal interview method. Secondary data were collected from various government publications/ annual reports related to the study. Various mathematical, statistical and econometric tools were extensively used for the analysis of data</p>
Major Findings.	<ol style="list-style-type: none"> <li>1. The survey revealed that majority (55%) of head of households belonged to age group 41-60 years. The average family size was 6.32 persons.</li> <li>2. The survey revealed that agriculture was the main occupation (38%) followed by DPL/private (20%) and government service (17%) on overall farms.</li> <li>3. Cropping pattern showed that on overall farms the kharif crops and rabi crops were about 55% and 44 % of cropped area.</li> <li>4. Production and consumption pattern showed that potato contributed 30 q of production out of which 2 q was kept for home consumption.</li> <li>5. The maximum positive (low level) technological gap was observed on small farms in human labour (73%) followed by FYM ( 70%) and urea (65%) in which again small farms were having the maximum technological gap. On an overall farm situation farmers were using more than the recommended quantity of seed and, therefore, having the negative technological gap of 51% on overall farms.</li> <li>6. The variable cost structure revealed that the total variable cost was highest (Rs. 93047 /ha) on marginal farms as compared to small farms (Rs.59611/ha) and at the overall farms, the total cost of cultivation was Rs. 72410 per ha.</li> <li>7. At the overall level, the total marketed surplus was found to be 27.28 q, out of total production of 29.42q. Out of this, 6.70 per cent was utilized at home, 0.44 per cent was offered as gift, and only 0.14 per cent of the produce remained unsold.</li> <li>8. The producer's share in consumer's rupee was highest of (100%) in channel I but this was not the important channel This channel was followed by 46growers but it could absorb just 3.59 per cent of the produce.</li> <li>9. Insect pests and diseases followed by costlylabour and non-availability of seed and labour for cultural operations in potato cultivation were the important problems in the study area.</li> </ol>
Suggestions	<ol style="list-style-type: none"> <li>1. The study of technological gap in various potato production practices indicated that the farmers of the study area were using higher quantity of seeds, Therefore, it is suggested that farmers may be educated to use optimum quantity of seed.</li> </ol>

	2. Appropriate provision for need based training cum awareness programs, demonstration and exposure visit to successful entrepreneurs be made to address the issue
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### 7.1 New Research Projects

Sr. No.	Title of the Project	PI	Funding source	Budget (in Rs. Lakh)	Year of Start and duration
1	Project on apiculture and its impact on crop production under MIDH scheme	S K Chauhan	H P Govt MIDH	14.00	To be started
2	Technological intervention for protected cultivation of vegetable science(Phase-III).	Dr. K. D. Sharma	Govt. of H.P. (RKVY)	3.10	April, 2016 One year

### 7.2 Ongoing and Completed Research Projects During 2015-16

Sr. No.	Title of the Project	PI	Funding source	Budget (in Rs. Lakh)	Year of Start and duration
1	A baseline survey of medium irrigation project Nadaun area in Hamirpur District of Himachal Pradesh	Dr Ashok Kumar	H.P. Govt.	9.63	2014; one Year
2	A baseline survey of lift irrigation scheme for Una upper beat area in Una District of Himachal Pradesh	Dr.J.S Guleria	H.P. Govt.	6.13	2015; one Year
3	Socio-economic status of inhabitant of Swan catchment: A bench mark study of phase IV-Swan River Flood Management Project in UNA District of HP	Dr. Rajesh Thakur	Govt. of HP	10.00	2015; one Year
4	A study on production,potential economic viability and marketing system of varied size mushroom units	S K Chauhan	ICSSR New Delhi	5.00	2013 24 Months
5	Emerging issues in dairy production and management in Himachal Pradesh	HarbansLal KD Sharma Virender Kumar	ICSSR, New Delhi	8.00	2013, 30 Months



6	Technological intervention for protected cultivation of vegetable science under RKVY (Phase-II)	Dr. K. D. Sharma	Govt. of H.P. (RKVY)	3.37	April, 2015 One year
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**7.3 Projects of consultancy nature for which financial allocation for 2015-16 was made however reports were submitted earlier**

Sr. No.	Title of the Project	PI	Funding source	Budget (in Rs. Lakh)	Year of Start and duration
1	Evaluation of preparatory phase of IWMP Projects 2010-11(IWMP-IV) Solan	Dr.J.S.Guleria	Govt. of HP	0.47	NA
2	Evaluation of preparatory phase of IWMP Projects 2009-10(IWMP VIII-XIV)	Dr.M.S.Pathania Dr.Virender Kumar	Govt. of HP	3.09	NA
3	Evaluation of preparatory phase of IWMP Projects 2009-10(IWMPVI-XI) PRAGPUR	Dr.Virender Kumar	Govt. of HP	1.02	NA
4	Evaluation of preparatory phase of IWMP Projects 2009-10(IWMP-VI) CHAMBA	Dr.Ashok Kumar	Govt. of HP	0.61	NA
5	Evaluation of preparatory phase of IWMP Projects 2010-11(IWMP II)Dev.Block AMB	Dr.J.S.Guleria	Govt. of HP	0.42	NA
6	Evaluation of preparatory phase of IWMP Projects 2009-10(ANNI- KULLU)	Dr.HarbansLal	Govt. of HP	0.56	NA

**7.4 Research Highlights -**

Five most important findings and policy implications (in bullet format) of completed projects

**Dr. S K CHAUMAN**

Title of the Project	A Study on Production,potential economic viability and marketing system
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	of varied size mushroom units
Findings	<ul style="list-style-type: none"> <li>• Himachal Pradesh has achieved a phenomenal growth in mushroom production estimated at the compound rate of 3.64 per cent wherein the growth of private sector units stood at 3.74 per cent in comparison to the public sector units of -1.54 per cent per annum.</li> <li>• Majority (91%) of growers raised one crop of mushrooms, followed by 5.50 per cent taking two crops, 2 per cent raising one crop of mushroom and one crop Dhingri and 1.50 per cent raising Dhingri with two crops of button mushroom in a year.</li> <li>• On the whole the average yield of button mushroom was as high as 3.05 kg per compost bag of 20 kg. This yield was lower than the average of 4.00 kg, 4.50 kg and 6.00 kg being obtained by progressive, more progressive and Hi-Tech mushroom units, respectively.</li> <li>• The total cost of mushroom production per bag and per kg was estimated to be Rs, 216.38 and Rs 70.94, respectively. However the net returns per bag and per kg over total cost and variable cost were found to be Rs 149.62 &amp; Rs 49.06 and Rs 220.52 &amp; Rs 72.30, respectively.</li> <li>• Mushroom grower → wholesaler → retailer → consumer and mushroom grower → retailer → consumer were the most important marketing channels followed by 16.25 and 28.81 per cent growers, respectively through which corresponding disposal was found to be 57.59 and 27.64 per cent.</li> <li>• The contribution of mushroom enterprise varied from 2.49 per cent on small to as high as 18.11 per cent on large units with an overall level of 10.56 per cent (Rs 95,993) in the total household income.</li> </ul>
Policy Suggestions	<ul style="list-style-type: none"> <li>• Formation of farmer's co-operative marketing society</li> <li>• Timely supply of subsidized assured quality spawned compost at the doorsteps of growers</li> <li>• Adequate visits of subject matter specialists in the fields in order to check the prevalence of disease and attack of insect pests, etc.</li> <li>• Really interested persons should be identified for imparting training in mushroom cultivation.</li> </ul>
<b>Dr. K D Sharma</b>	
Title of the Project	Technological intervention for protected cultivation of vegetable science under RKVY (Phase-I)
Findings	<ul style="list-style-type: none"> <li>• In Palampur condition, cucumber-tomato cropping system produced highest gross returns worth Rs. 50,000 from 250m<sup>2</sup> area while capsicum-garden pea gave gross returns of Rs. 47,000 from the same area. In Dhualakuan, three cropping modules were adopted in three polyhouses (100m<sup>2</sup> each). Out of these, tomato-frenchbean emerged as the most profitable cropping module with gross and net returns of Rs. 34,520 and Rs. 24,041 with the high output-input ratio of 3.29.</li> <li>• Majority of the farmers in Bilaspur followed sole cropping of capsicum in about 67 per cent of the area. Two cropping system of tomato-</li> </ul>

	<p>cauliflower and cucumber-cauliflower accounted for about 11 per cent and 6 per cent of the total area, respectively. In Kangra, farmers adopted large number of crop combinations and mixed cropping under protected cultivation. . In Sirmaur, the predominant cropping systems were: tomato-capsicum and cucumber-capsicum accounting for 66 per cent and 26 per cent of the total area under protected cultivation, respectively.</p> <ul style="list-style-type: none"> <li>• In Bilaspur, the average yield of capsicum was 4.72 q/100m<sup>2</sup> with 26 per cent coefficient of variation. In Kangra, the average yield of capsicum was very low (1.63q/100m<sup>2</sup>) with very high variability. Wilt was reported to be the major problem in capsicum crop in Kangra. The maximum yield of capsicum was found in Kullu (7.50q/100m<sup>2</sup>) with low variability. In Sirmaur, the average yield of capsicum was 4.40q/100m<sup>2</sup> with 26 per cent coefficient of variation. In case of tomato, the average yield per 100m<sup>2</sup> areas ranged from 2.30q in Kangra, 3.46q in Kullu, 4.29q in Sirmaur and 4.40q in Bilaspur. The variability in yield was found to be the maximum (58%) in Kangra. In case of cucumber, the average yield on farmer’s polyhouse was 4.36q in Kangra, 4.68q in Sirmaur and 5.96q in Bilaspur. While in Kullu cucumber was not grown under protected environment during 2015. The variability in the yield of cucumber ranged from 17 to 38 per cent in different locations.</li> <li>• On overall basis, it was estimated that the farmers earned Rs. 53,553 per farm from polyhouse during cropping season 2015 in which the contribution of capsicum was around 52 per cent followed by tomato (15%) and cucumber (14%). Cauliflower (grown in Bilaspur and Kangra) also contributed about 8 per cent of the gross earnings.</li> <li>• It was found that the farmers were operating at different levels of knowledge and technology. About 46 per cent of the farmers had acquired at least two trainings while majority of the farmers had acquired one or no training.</li> <li>• Overall, there was 65 per cent adoption of technology. Kullu ranked first (89%) in the adoption of technology followed by Bilaspur (77%). The adoption level was quite low in Sirmaur (52%) and Kangra (43%).</li> <li>• Lack of insurance cover on polyhouse structures was reported as the main problem by majority of the growers (77%). The growers were not in a position to repair the structures damaged due to heavy snow and wind storms. Likewise, there was no mechanism and technical support to repair polyhouse units like repair/replacement of mesh, poly sheets, foggers, drip/sprinkler system and other components of structure. This problem was expressed by more than 63 per cent of the respondents. Other problems were; lack of technical know-how (35%), faulty design of polyhouse structure (22%) and non-availability of planting material and critical inputs at proper time (21%).</li> </ul>
Policy Suggestions	<ul style="list-style-type: none"> <li>• It is suggested that all the polyhouse growers should be trained to create awareness about protected cultivation technology.</li> </ul>

	<ul style="list-style-type: none"> <li>• There is a need to frame a policy to provide insurance on polyhouse structures to cover risk due to natural hazards.</li> <li>• There should also be a mechanism of agri-workshops or licensed service providers to cater to repair needs or replacement of old/damaged poly sheets.</li> <li>• Regular R&amp;D backup support is essential component for sustaining protected cultivation in the state. During 2015, 35 trainings were organised by the University in which 750 farmers from different parts of the states and 20 officials of department of agriculture participated. This process should be continued in near future also</li> </ul>
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**Dr. HarbansLal**

Title of the Project	Emerging issues in dairy production and management in Himachal Pradesh
Findings	<ul style="list-style-type: none"> <li>• The small dairy farmers invested more on crossbreed cows whereas the large dairy farmers invested more on buffaloes. The total capital investment was amounted to Rs. 61,103 on an average dairy farm.</li> <li>• Among different dairy animals the maximum quantity of green fodder was fed to the buffalo (25.0 kg) followed by crossbred cow (22.0 kg) and the minimum was fed to local cow (16.0 kg). The quantity of feed and concentrate fed to the animals was found to be ranging between 2.6 kg per day from cross bred cow to 3.2 kg per day for buffalo.</li> <li>• The milk yield across different dairy animals was found to be maximum for crossbred cow (10.1 litres/day) and minimum for local cow (3.0 litres/day). The milk yield in case of buffalo was found to be 7.10 litres per day.</li> <li>• The total cost to milk production on an average category of dairy farmer per crossbred and local cow was estimated at rupees 276.43 and rupees 185.58 whereas, per buffalo it was rupees 315.26</li> <li>• The returns over fixed cost were, however, turned out to be positive for all the dairy animals. The returns to labour and management on an average dairy farmer were found to be significantly positive for crossbred cow (Rs.50754) and buffalo (Rs.29601) and marginally positive for local cow (Rs.1188). The cost of per litre milk production on an average dairy farmer was worked out to be rupees 23.43, 41.27 and 32.42 for crossbred cow, local cow and buffalo respectively.</li> <li>• The benefit cost ratio was found to be 1.28, 0.77 and 1.08 for crossbred cow, local cow and buffalo milk production on an average dairy farmer.</li> <li>• The most important factor affecting the milk production of crossbred cow turned out to be the amount of feed/concentrate fed the cows. The availability of total fodder was short of about 12 per cent of demand on an average dairy farmer. About 15 per cent of the total milk production was converted into milk products like ghee, curd and cheese and other products.</li> </ul>

	<ul style="list-style-type: none"> <li>The milk cooperative at the village level was the main agency handling 36 per cent of the total marketed surplus. About 20 per cent of the total dairy farmers followed this agency for marketing of milk. The organized sector did not play its too much role in the marketing of milk.</li> </ul>
Policy Suggestions	<ul style="list-style-type: none"> <li>The farmers must be educated about the management of dairy animals on scientific lines. They must be made aware of good breeds either through organising cattle fairs in the respective regions or by conducting exposure visits to various veterinary institutions within and outside the state. The training camps on dairy farming must be conducted regularly to the needy dairy farmers to teach them better management practices.</li> <li>The more and more efforts should be made to disseminate production technology for the cultivation of improved fodder grasses and grassland improvements with planting of nutritious fodder species to fill the deficit of fodder availability in the area.</li> <li>There must be provision of financial assistance through the Department of Animal Husbandry to the needy dairy farmers for creating the facility of stall feeding of animals through construction of manger and purchase of chaff cutters and its accessories.</li> <li>The facility of artificial insemination must be strengthened almost in every village for breeding and livestock improvement. It would result in increasing the fertility among dairy animals and would also check the menace of stray animal by reducing their numbers.</li> <li>Therefore, there is need to maintain the parity of milk prices to run the milk collection and cooling plants to their full capacity</li> <li>Efforts should be made by the government to provide physical facilities like storage, transport and processing through collection and processing centres to facilitate the effective marketing of fluid milk. Also most of the sample villages lack in basic infrastructural facilities. Therefore, the provision must be made to supply standard cattle feed at the door step of the dairy farmers as provided under the organised system of marketing of milk in other villages of the study area.</li> </ul>
<b>Dr. Ashok Kumar</b>	
Title of the Project	A Base line survey of command area of Nadaunmedium irrigation project in Hamirpur district of Himachal Pradesh ( India)
Findings	<ul style="list-style-type: none"> <li>The topography of right bank is undulating having steep slopes in comparison to the left bank. The bullocks were maintained by only a few farmers on the left bank. Buffaloes were equally reared by the farmers for milk purpose in comparison to cows. Buffaloes were more popular on the left bank area than the right bank as in this zone bank the farmers had facilities for growing green fodder as well as for the sale of milk.</li> <li><i>Rabi</i> pulses occupied nearly 1.34 per cent and vegetables occupied nearly</li> </ul>

	<p>3.73 (4.56 per cent on the right bank and 3.51 per cent on the left bank) of the total cropped area. In the category of <i>Rabi</i> oilseeds, mustard was the important crop that occupied nearly 1.76 per cent (2.68 on the right bank and 1.56 per cent on the left bank) of the total cropped area. Mustard crop is mainly grown mixed with wheat. Therefore, the production is totally depended on rain. These observations were recorded while collecting data from the village farmers. The overall cropping intensity was computed as 200.31 per cent in the study area.</p> <ul style="list-style-type: none"> <li>• Mainly local seeds were used by the farmers on both banks. Use of HYV was being done by a small proportion of farmers. In <i>rabiseason</i> wheat was found to be the most important crop covering 42.85 per cent and 50 per cent of total cropped area on the overall farms. Maximum area was found to be under local varieties of crops.</li> <li>• Maize HYV gave higher yield than maize local. After maize and wheat, chari/bajra, barseem and mustard are the other major crops in the study area. The average yield of Mustard was 12.31 q/ha. The yield was totally dependent upon the rain. 60 per cent of farmers were below average while 40 per cent were above average.</li> <li>• Potato was grown by the farmers but only for their home purpose. The average yield was 74q/ha. The highest yield was 92q/ha which was on the fields of those farmers which have any source of irrigation which may be their own tube wells. The lowest yields (57.5q/ha) was in the fields of those which depends for upon on rain.</li> <li>• Peas were cultivated on the both right and the left bank and only 13 per cent of the total households (150) were cultivating Peas. The average yield obtained by the farmers was 70.92q/ha. 58 per cent of the cultivators had obtained yield below average level and 42 per cent obtaining above than average leve</li> <li>• Tomato is cultivated on the both right and the left bank and only 8 per cent of the total households (150) were cultivating Tomato. The average yield obtained by the farmers was 99.23q/ha. 33 per cent of the cultivators obtained yield below average level and 67 per cent obtained above than average level. On the right bank more farmers are growing tomato as compared to left bank</li> <li>• Cucumber was grown by 19 per cent farmers. The average yield of cucumber was 60.51q/ha in the study area. About 48 per cent of the farmers obtained yield above average level and 52 per cent obtained yield below average level. 51 per cent of the cultivators were obtaining yield below average level. The average yield of soybean was 12.98q/ha.</li> <li>• 40 per cent of the farmers grow onion on their fields but only for table purpose. The average yield was 25.48 q/ha. 43 per cent farmers obtained yield above average and 57 per cent above average.</li> <li>• The average yield of garlic was 22.07 q/ha. The farmers having yield above average was 48 per cent and below average was 52 per cent. The average yield of coriander was 1.71 q/ha. 29 per cent farmers obtained yield above average and 71 per cent below average. The average</li> </ul>
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	<p>production of dried chillies was 0.45q/ha. 42 per cent farmers obtained yield below and 58 per cent obtained above average.</p> <ul style="list-style-type: none"> <li>• On an average there were 0.17 crossbred in-milk cows as against 0.18 local cow, out of which 0.15 were in milk. In case of buffaloes 0.68 were found to be in milk and 0.22 were dry. Sheep and Goat were 0.25 in number. The surplus milk was sold as fluid milk. 42 per cent of the total production was sold on the right bank and 53.38 per cent was sold on the left bank</li> <li>• The gross household income has been estimated at Rs 4, 61,614). Farm income accounted for about 17.62 per cent. Which included 8 per cent from the agriculture, 2 per cent from horticulture, 7 per cent from livestock</li> <li>• Farmers perceived many positive effects like increase in productivity of crops, increased milk production demand for inputs, credit and commercialization of crops. The ultimate benefits will be increased income, output and employment which will improve the living standard of the beneficiaries of the project.</li> </ul>
Policy Suggestions	<p>The bench-mark survey clearly revealed the good potential for diversification of Agriculture through irrigation as the yield of crops could be enhanced by 30-50 per cent.</p> <p>Therefore, after completion of irrigation scheme the farmers should be provided with good quality seeds and Technical know-how to make efficient use of irrigation water.</p>
<b>Dr. J S Guleria</b>	
Title of the Project	A baseline survey of lift irrigation scheme for Unaupper beat area in Una District of Himachal Pradesh
Findings	<ul style="list-style-type: none"> <li>• The result indicated that maximum number of heads of the families was educated and only a few number of heads were illiterate (16.92). The percentage was significantly higher on the small category farmers (22.09) as compared to the medium farmers (12.90) and large farmers (12.77).</li> <li>• From land holding point of view all the sample farmers belonged to marginal category having land 0.125 ha irrigated and 0.067 ha on small units to 0.145 ha irrigated and 3.212 ha un-irrigated on large category with overall average of 0.167 ha irrigated.</li> <li>• It can be concluded that livestock economy of the area is mainly based on buffalo milk. However, farmers also understand the higher benefits attached with rearing improved cows where the productivity and net returns are higher.</li> <li>• It can be observed that on the whole maize grown under rain fed condition was the important crop grown in the study area as it accounted for 40.10 per cent of the gross cropped area. Chari and Bajra were the next important crops grown as fodder crops by the farmers during the <i>Kharif</i> season. The study revealed that the production of mango (87.62 per cent) attained almost high position in the category of all fruit grown where farmers had their other source of irrigation. In the study area some</li> </ul>

	<p>other fruits were also noticed but in small number like Loquat, lemon etc.</p> <ul style="list-style-type: none"> <li>• About 47.79 per cent of farmers were below average while 52.21 per cent were above average. Between the three categories, the yield of the small category farmers was higher (30.07 per cent) than the Medium (28.18 per cent), and large category farmers (28.15 per cent), whereas, the lowest yield was also on the large category farmer.</li> <li>• On an average the highest yield was estimated to be 39.40 q/ha on HYV variety and 35.67q/ha on local variety. It is important to note that about 52.08 per cent farmers obtained yield below than average and rest 47.92 per cent were above average yield in local variety of wheat. Similarly, table indicated that 56.86 per cent of the farmers obtained yield below than average and rest 43.14 per cent were above average yield in HYV variety of wheat.</li> <li>• It was found that the gross household income has been estimated at Rs11, 53,042. Farm income (agriculture, livestock, horticulture and agro forestry) accounted for about 23.27 per cent and non-farm sector, service/pension and business trade were the major sources accounting for about 76.73 per cent of gross household income.</li> </ul>
Policy Suggestions	<ul style="list-style-type: none"> <li>• It was suggested that stray/wild animal's menace and non-availability of water at critical stages of crop were main problems being faced by farmers followed by non-availability of water at critical stages of crop. Among stray animals, <i>Neel</i> cow was the major problem reported by majority of farmers. The govt. should take steps to check these problems.</li> </ul>

## 8 Extension Activities

During the year under report, the faculty of the department delivered the lectures to farmers, officials of the line departments and other stake holders on various topics of contemporary relevance. The details are as under:-

### 8.1 Extension lectures delivered

Sr. No.	Name of faculty	No. of lectures delivered	Participants
1	Dr. S K Chauhan	2	50
2	Dr. Virender Kumar	1	35
3	Dr. K D Sharma	29	825
4	Dr. Harbans Lal	2	60
5	Dr. M S Pathania	1	30
6	Dr. Ashok Kumar	1	25
7	Dr J S Guleria	1	48

## 9 Radio/TV Talks (only topic and station):nil

## 10 Publications

### 10.1. Research publications

1, Utpalendu Debnath, Neha Jamwal, Virender Kumar and Harbans Lal (2015). Spatio-temporal



changes in area, production and productivity of fruit and vegetable crops in mountainous states, *Agricultural Economics Research Review*; 28 (Conference Number):316.

2. Katoch Anup, Guleria J.S and Kumar Ashok (2016). Impact of NathpaJhakri Hydroelectric power project on farm production systems, income and livelihood status in Kinnaur and Shimla districts of Himachal Pradesh. *Himachal Journal of Agricultural Research* 42 (1): 67-75
3. Chauhan S K and Sakshi Chouhan (2014). Evaluation of sericulture development project in district Bilaspur of Himachal Pradesh. *Himachal Journal of Agricultural Research*, 40(2): 141-149.
4. Chauhan S K, Shakshi Chouhan and Megha Rattan (2015). A study on the impact of sericulture development programmes in H.P. *Indian Journal of Agricultural Economics*, 70(3): 89-90.
5. Sharma Ashwani Kumar, Sharma KD and BrahmPrahkash (2015). Death of Kuhl irrigation system of Kangra valley of Himachal Pradesh: institutional arrangements and technological options for revival. *Indian Journal of Agricultural Economics*. 70 (3) : 350-364
6. Sharma KD, Pathania MS, BalaBrij and Gupta Manoj (2015). Progress of protected cultivation under Rural Infrastructural Development Fund (RIDF) Project in Himachal Pradesh. *Indian Journal of Agricultural Economics*. Vol. 70 (3) pp 285-286
7. Kumar, Ashok and Anju Thakur and Vikalp Sharma. (2015). Fisheries in Himachal Pradesh: position and prospects: A case study of fish marketing from Pong reservoir in district Kangra of Himachal Pradesh, *Indian Journal of Agricultural Marketing* Vol. 29 No.2 May-August 2015 page 146

#### **10.2 Popular articles -Nil**

#### **10.3. Books/ Booklets/Book Chapters:**

1. Sharma H R, Chauhan S K and Sakshi Chouhan (2016)). Social impact assessment of Dhaulasidh hydro electric project in H.P: Implications for CSR related issues. In Corporate Social Responsibility in India- Quest for socio economic transformation CRRID: 263-282.
2. Sharma KD (2016) Application of Operations Research in Agriculture- A teaching manual, Department of Agril.Economics, Ext. Edu.&Rur.Sociology, COA, CSKHPKV, Palampur, pp 142.

#### **10.4. Preparation of Reports (Research Projects/ Bulletins/ Mimeographs/ Brochure)**

1. Chauhan S K (2015). A study on production potential, economic viability and marketing system of varied size mushroom units in H P. Department of Agricultural Economics, Extension Education & Rural Sociology, CSK HPKV, Palampur. Publication No. 73.
2. Chauhan, S K and Jamwal Neha (2015-16). Proceedings of Credit Seminar 2015-16. Editor and compiler, Department of Agricultural Economics, publication No.76.
3. Sharma KD, Pathania M.S., BrijBala and Gupta Manoj. 2015. Technological Intervention for Protected Cultivation of Vegetable Crops (Phase-II) under RKVY Department of Agricultural Economics, Extension Education & Rural Sociology, College of Agriculture, CSK HP Krishi Vishvavidyalaya, Palampur, Publication No. 74, pp 21.
4. Vision 2050. CSKHPKV Draft of Vision Document submitted to Hon'ble Vice Chancellor (Technical Cell) compiled by KD Sharma, Dr. Navin Thakur, Dr. PC Sharma and Dr. Aneesh Thakur, pp 88.

5. Preparation of DPR to suggest alternatives to Bhang cultivation (*Cannabis sp.*) in Kullu and Mandi Districts of Himachal Pradesh. Observation Report submitted to Director of Extension Education, CSKHPKV, Palampur. Report compiled by Task Force Drs.R S Jamwal, J S Guleria, K D Sharma, BrijBala, G D Sharma, AnupKatoch and DipaliKapoor, pp 15.
6. Sharma, KD (2015). Annual Progress Report of Dhauladhar Hostel for 2014-15. Report submitted to Students Welfare Officer, CSKHPKV, Palampur in July, and 2015.5.6.
7. Pathania MS, Kumar Ashok and HarbansLal (2016) Infrastructure –Led Growth of Agriculture in Himachal Pradesh under RKVY, Govt of Himachal Pradesh as **PI**
8. J.S Guleria,.And Ashok Kumar (2016) “A baseline surveyof Lift Irrigation Scheme for Una Upper Beat Area in Una District of Himachal Pradesh Report submitted to Department of Irrigation and Public Health, Government of Himachal Pradesh. on 31-03-2016
9. Kumar Ashok and J S Guleria (2015) “A Base Line Survey of Command area of Nadaun Medium Irrigation Project in Hamirpur district of Himachal Pradesh Final Draft of the report Submitted to Department of Irrigation and Public Health, Government of Himachal

#### **10.5. Paper presented in seminars/conferences/workshops, etc.**

1. Chauhan S K, ShakshiChouhan and Megha Rattan (2015). A study on the impact of sericulture development programmes in H.P. Indian Journal of Agricultural Economics, 70(3): **89-90**.Paper presented in annual conference of ISAE, held at PAU, Ludhiana on 18.11.2015.
2. Kumar, Ashok and Anju Thakur and Vikalp Sharma. (2015). Fisheries in Himachal Pradesh: Position and Prospects: A case study of Fish marketing from Pong reservoir in district Kangra of Himachal Pradesh.ISAM,Udaypur, Oct,2015
3. UtpalenduDebnath, NehaJamwal, Virender Kumar and HarbansLal (2015). Spatio-temporal changes in area, production and productivity of fruit and vegetable crops in mountainous states, presented byUtpalenduDebnathin *the 23rd Annual Conference of Agricultural Economics Research Association (AERA), New Delhi at ICAR-Central Institute of Fisheries Education, Mumbai (2-4December, 2015)*.

### **11. Faculty Improvement**

**11.1.** Trainings, summer/winter school/short courses attended nil

#### **11.2. Participation in conferences/seminars/symposia/workshop;etc.**

**Dr. K D Sharma**

- Participated in Agricultural Officers Workshop on Rabi Crops 2015-16..Organised by Directorate of Extension Education, CSKHPKV, Palampur on November 21, 2015.
- Participated in Workshop-cum-Training Programme on Protected Cultivation of Vegetable Crops to Agricultural Officers under RKVY Project, “Technological

Intervention for Protected Cultivation of Vegetable Crops”. Organised by Directorate of Research, CSKHPKV, Palampur on December 18-19, 2015.

- Participated in Workshop-cum-Training on Zero Budget Farming..Organised by College of Agriculture, CSKHPKV, Palampur on April 27-30, 2016.

**Dr. Virenderkumar**

- Attended 23rd Annual Conference of Agricultural Economics Research Association (AERA), New Delhi at ICAR-Central Institute of Fisheries Education, Mumbai (2-4 December, 2015).
- Attended workshop on “Sustainable Agriculture: Harnessing Technologies-Harvesting Prosperity” (Jan 29, 2016), at New Delhi organized by FICCI.
- Participated in Zero Budget Farming Training (April 27- 30, 2016) organized by

**Dr. J S Guleria,**

- 4- days training on zero budget farming at Palampur from 27-4-16 to 30 4-16
- Participated in Agricultural Officers Workshop on Rabi Crops 2015-16.Organized by Directorate of Extension Education, CSKHPKV, Palampur on November 21, 2015.

**Dr MS Pathania**

- 4- days training on zero budget farming at Palampur from 27-4-16 to 30 4-16

**Dr. AnupKatoch**

- 4- days training on zero budget farming at Palampur from 27-4-16 to 30 4-16

**12. Awards and Honours**

**12.1 Faculty:**

Dr. S K Chauhan got reviewer excellence award, 2016 as a reviewer of Indian Journal of Agricultural Research & Legume Research- An International Journalfor recognizing his significant and outstanding contribution to Journal for last so many years

**12.2 Students: nil**

**13 Achievements in academics by students**

Achievementsinacademics by students of the department (No. of SRF, JRF & NET, etc.)

Ten following B. Sc (Hons) Agriculture 4<sup>th</sup> year elective students of this department have attained good ranking in the JRF, 2016 of ABM/ social science group.

Sr. No.	Name	Admission No.	Subject / Discipline	All India Rank
1.	SushantKaisth	A-2012-01-076	ABM	2nd
2.	Ankita Sharma	A-2012-01-010	ABM	11th
3.	DevanshiBaghla	A-2012-01-019	ABM	44th
4.	DikshaSethi (	A-2012-01-020	ABM	61st

5.	Deepali	A-2012-01-017	Social Sciences (Economics)	64th
6.	ManpreetKaur	A-2012-01-037	Social Sciences (Economics)	123rd
7.	Namrata Devi	A-2012-01-039	Social Sciences (Economics)	144 <sup>th</sup> (6 <sup>th</sup> category rank)
8.	Aman Kumar	A-2012-01-005		MANAGE, Hyderabad
9.	Manisha	A-2012-01-034		NAARM, Hyderabad
10.	SukritiVerma	A-2012-01-071	NIAM Jaipur	

**List of the students who have qualified SRF, 2016 in social science group**

Sr. No.	Name	Admission No.	All India Rank
1	Anju Thakur	A-2014-30-007	41st
2	UtpalenduDebnath	A-2014-30-014	43rd
3.	Vikalp Sharma	A-2014-30-015	55th
4.	ArushiVyas	A-2014-30-008	82nd

A national seminar on “**Changing Face of Agribusiness- then and now**” jointly organized by SIIB, Pune and COA, Palampur for the B Sc (Hons) agriculture students of 4<sup>th</sup>& 3rd year on 20 08.2015. The seminar was coordinated by DrVirender Kumar.

**13.1 Students Other Activities**

- MsJayotiChaudhary, student of M Sc Agricultural Economics first year was conferred with two gold medals in 13<sup>th</sup> convocation on 01.11.2015 one for highest OCPA of 8.36/10.00 for the academic year 2014-15 and the second gold medal pertained to ParkashSingha Gold Medal by R S Amin Chand memorial Trust, Shimla for highest grade point average of 8.58/10.00 in the courses of the Department of Horticulture and Vegetable Science & Floriculture during the academic year 2014-15.
- Two M Sc final year students of this department namely MsAnju Thakur and Megha Rattan did participated and presented papers in the 75<sup>th</sup> annual conference of ISAE, Mumbai.
- One M Sc final year student of this department MrUtpalenduDebnath did participated and presented papers entitled “Spatio-temporal changes in area, production and productivity of fruits and vegetable crops in mountain states” in the above state 23<sup>rd</sup> annual conference. The presentation was appreciated by the participants and chairperson of the session.
- MsDivya Sharma, MsAnju Thakur and MsMegha Rattan attended 4 days workshop on Zero Budget Based Natural Farming organized by the Directorate of Extension Education from 27-30.04.2016.
- Three students of M Sc first year did participated in the world cultural festival, held at New Delhi on 11.03.2016

- Three PG Alumni of the department namely Aditi Thakur, Divya Sharma and Aditi Raina have been selected as Agricultural Vocational Teachers

#### 14 Swachh Bharat Programme

Under the Swachh Bharat Programme special cleanliness activities were carried out on 05.10.2015, 07.10.2015 and 09.10.2015. During these days the cleanliness work was performed outside the building along small lawn, in the office rooms/ labs and corridor and in the canteen of College of Agriculture.

#### 15. Visits Abroad: nil

#### 16. New Assignments: nil

#### 17. Miscellaneous Activities/ Information:-

sr. no	Particulars	Level
	<b>Dr. S K Chauhan</b>	
1.	Convener of invitation committee for holding Golden jubilee functions of COA, Palampur	College of Agriculture level, 2015-16
2.	Convener of preparing chief guest speech for 13 <sup>th</sup> convocation	University level, 2015
3	Centre incharge for All India Entrance Examination Agriculture (AIEEA) UG-2016	Centre: Examination hall COA, Palampur CSK HPKV, Palampur
4.	Convener of experiential learning for Agribusiness management module	College of Agriculture level, 2015
5	Assisted as class tutor of 2 <sup>nd</sup> year the convener for organizing Fresher's day, 2015	College of Agriculture level, 2015
6	Tutor for B Sc (Hons) Agriculture 2 <sup>nd</sup> year	College of Agriculture, 2015-16
7	Co-coordinator for the CSKHPKV entrance test-2016	University level
8	Nodal officer of CSKHPKV, Palampur for better co-ordination and liasoning with education division, ICAR 2016	University level
9	Representative of CSK HPKV, Palampur for state level expert group on state income aggregates for improvements in state income estimates	University level
10	Member advisory committee for academic and technical work of AER of HPU, Shimla for 2016-17	As Professor and Head of the Deptt.
	<b>Dr. Virender Kumar</b>	
<b>A.</b>	<b>UNIVERSITY LEVEL</b>	
1.	<b>Member of the Committee to Conduct Counseling</b> and draw merit for the selection of candidates for admission to the following programmes of the University for the Academic Year 2015-16 as the Nominee of Hon'ble Vice Chancellor	

	<p>i) B.V.Sc.&amp; A.H. and B.Sc (Hons.) Agri.: 01.07.2015 for General and SFS category and 02.07.2015 for all other categories</p> <p>ii) M.Sc. (Agriculture) and M.Sc. (Vegetable Science): 05.08.2015</p> <p>iii) M.Sc. (Home Science) and M.Sc.: 06.08.2015</p> <p>iv) M.V.Sc. and M.Sc. (Animal Nutrition and/Animal Physiology): 06.08.2015</p> <p>v) Ph.D. : 12.08.2015</p> <p>vi) Walk-in Interview for B.Sc. (Hons.) Home Science and B.Sc.(Hospitality and Hotel Administration) programmes: 07.08.2015</p> <p>vii) Walk-in- Interview to M.Sc and Ph.D programme: 31.08.2015</p>
1	Nodal Officer, Results Framework Document (RFD) of CSKHPKV University
2.	Nodal Officer cum Member Secretary, Agricultural Technology Foresight Centre (AFTC) of CSKHPKV
3	Member of the Committee constituted by Registrar CSKHPKV for screening of the applications of clerks.
4	Member, PME Cell
5.	Member, 'Oilseeds Group including flax' and 'Vegetable Crops'
6.	Member of the Committee, to prepare speaking points/address of His Excellency, The Governor of Himachal Pradesh during the Zero Budget farming Training (April 27- 30, 2016) by DEE, CSKHPKV
7	Member of Committee by Dean PGS to compile information on New Education Policy
8	DR's Representative in the selection committee of SRF, Dept of Entomology, COA
9	Member of Committee by Dean COA to prepare rough draft of the Address of Chief Guest for the 13 <sup>th</sup> Convocation
<b>B</b>	<b>COLLEGE LEVEL</b>
1.	Convener, College Academic Affairs Committee.
2.	Member, Board of Studies, COA, Palampur for the year (April 21 2015 to April 20, 2016).
3	Member, golden Jubilee Souvenir of COA, compiling and editing committee.
4	Member, flying squad of the college during end term examination (June, 2016)
5	Editor (English) of the COA magazine 'Him Jyoti'.
6	Member of the committee appointed by Dean, COA to enquire into the case of use of unfair means in the end term examination (Dec 2015).
7	Prepared a Note for Dean, COA, seeking financial assistance of Rs 5 crore from ICAR (DDG Education).
<b>C</b>	<b>DEPARTMENT LEVEL</b>
1.	Member, academic committee of the department during the year
2.	Convener, annual technical report 2014-15 of the department
3.	Staff councilor, semII, 2015-16
4	Convener, lab, class room, & departmental library
5.	Convener, comprehensive examination of M.Sc students, 2015-16.
6	Member, committee for coaching of students for JRF/SRF/NET, etc.
7	Attended to the other assignments of the higher authorities from time to time
<b>D</b>	<b>Others</b>

1	Setting of paper for PAU Ludhiana and University of Horticulture, Bagalkot Karnataka.
2	Evaluated Ph.D thesis from IARI New Delhi, TNAU Coimbatore and M.Sc. thesis from SKN Agriculture University Jobner, Rajasthan
3	Conducted viva voce exam of Ph D student of IARI
4	Superintendent and Invigilator in Examination UG &PG exam April 2016
5	Evaluation of students in credit seminars
6	Checking of synopses and theses as a member of Advisory Committees of PG students
	<b>Dr. K D Sharma</b>
1	Convener, Committee constituted by Vice Chancellor, CSKHPKV, Palampur for preparation of CSKHPKV, Vision 2050
2	Convener, Committee constituted by Dean, COA to prepare ICAR Seminar proposal on the eve of Golden Jubilee Year of College of Agriculture
3	Member, editorial board of Himachal Journal of Agricultural Research appointed by Director of Research, CSKHPKV, Palampur for Year 2015-16
4	Member, Task Force constituted by Vice Chancellor, CSKHPKV, Palampur under the Chairmanship of Dr. R S Jamwal to prepare DPR to suggest alternatives to abandon Bhang cultivation in different pockets of Malana belt and similar other hilly areas of state.
5	Member, committee constituted by Dean, Post Graduate Studies to compile draft report on New Education Policy
6	Member, Committee to prepare a training proposal on Marketing Management in Agricultural Commodities submitted to Department of Agriculture, Cooperation and Farmer's Welfare, GOI
7	Convener, academic committee, Department of Agricultural Economics, Extension Education and Rural Sociology, CSK HPKV Palampur for the year 2015-16
8	Convener, ISO Departmental committee for the year 2015-16
9	Member, PME cell of CSKHPKV, Palampur
10	Member, expert committee for making most remunerating price discovery on tea constituted by Hon'ble Vice Chancellor, CSKHPKV, Palampur
11	Resource Person for Trainings organized by DEE, CSKHPKV, Palampur
	<b>Dr. J S Guleria:</b>
1	Member Board of studies Central University Shahpur
2	Member DPC Central University Dharamshala

## 18. List of Visitors in the Department

1. Dr Hans Raj Raj Sharma Head Economics cum Dean School of Social Sciences at CUHP, Shahpur delivered **two** guest lectures to our Experiential leaning, M Sc and Ph D students of the department on Basic Concepts in Economics on 04.09.2015 and 19.09.2015.

2. Dr (Major) Avaninder Kumar (veterinarian) an alumni of CSK HPKV, Palampur and H.A.S probationer visited the department on 16.09.2015. He was introduced among the faculty and students separately by the HOD. Dr Avaninder interacted with the faculty and students separately. He advised the PG students to work hard consistently and appreciated them for managing their PG computer lab.
3. Dr R C Sharma Head Agricultural Economics College of Agriculture RAU, delivered One guestlecturer to the faculty and PG students of the department on Comparative Analysis of Rajasthan and Himachal Pradesh with Reference to Agriculture and Allied Sectors on 06.10.2015
4. Dr Hans Raj Raj Sharma, Head Economics cum Dean School of Social Sciences at CUHP, Shahpur delivered three guest lecturers to M Sc and Ph D students of the department on BASIC CONCEPTS IN ECONOMIC POLICY on 06.11.2015 at 3.30 PM (one lecture) and 07.11.2015 at 2.00 PM to 4.30 PM (Two lectures).
5. Dr S C Tewari former Head Department of social sciences UHF, Solan held interaction meet with the faculty and PG students on 04.04.2016

### **19. Sustainable Agricultural Economics Research Farm: -**

Vide letter No. QSD-E10(Rev) CSKHPKV/ Estate/15/ 602-620 dated 1-03-15 university administration allocated 10 ha undeveloped area to be brought under crops as sustainable agricultural economic research farm near Poultry Farm, CSKHPKV, Palampur. To develop and cultivate the area, three members following committee was constituted.

- |                     |          |
|---------------------|----------|
| 1) Dr. J S Guleria  | Chairman |
| 2) Dr. M S Pathania | Member   |
| 3) Ms. Kamini Kapur | Member   |

For the above mentioned unirrigated land, neither funds were provided by the university administration nor there was any project like AICRP in the Department from where the financial resources could have been arranged. Therefore, the committee prepared detailed report of activities to be undertaken and came out with financial estimates required for the development of land. The committee also prepared the feasibility report.

The development plan and feasibility report was submitted by the department to the Vice chancellor through Director of Research. Based on request two beldars were transferred to this department in the month of November, 2015 and one was further transferred to other department in the month of December, 2015.

Keeping in view, no experience of handling such types of activities on one hand and funds constraint on the other initially 4 kanals land was developed and brought under cultivation of oats for fodder purpose from the meager financial resources of the department. Subsequently, 7-8 kanals of area was further got developed into fields liable for raising fodder crop in kharif, 2016.



The details of expenditure and income from allotted land during two seasons as on June. 30, 2016 are as under: -

S. No	Particulars	Quantity	Rate	Amount. (Rs.)
A	Investment on fixed capital (2 big sickles + 1 small sickle + 1 faura, , etc)	4	Rs 600/150/220	1,570
<b>B.</b>	<b>Expenditure</b>		Rs.	
1	Land development and sowing charges trough tractor in Oct 2015	6+1 hours	2550/-and 600	3150 /-
2	Oats seed	30 kg	63/-	1890/-
3	Fertilizer mixture	50kg	2.07/-	1035/-
4	Land development and sowing charges(March-June 2016)	44hours	425/-	18700/-
5	Seed ( Bajra)	30kg	71/-	2130/-
	<b>Total</b>			<b>26905=00</b>
<b>C</b>	<b>Income</b>			
1	Auction of field grasses	--	---	4000 =00
2	Sale of green fodder (oats)	500kg	200/-	1000 =00
3	Total			<b>5000 =00</b>
<b>D.</b>	<b>Net Profit (C – B)</b>	-	-	<b>(-) 21905</b>