ANNUAL REPORT
2012-13

AERC
Established in 1961

Agro-Economic Research Centre
For the states of Gujarat and Rajasthan
(Ministry of Agriculture, Govt. of India)
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Chairman’s Statement

It gives me immense pleasure to take note of the achievements of the Agro-Economic Research Centre (AERC) for the year 2012-13. I am pleased to note that the Centre has continued the tempo of academic activities for the 52nd year in succession. The Annual report 2012-13 presents a fairly comprehensive account of the various academic activities of the Centre. It also describes the activities of the faculty members and researchers at the Centre.

Right from its inception, this Centre has undertaken number of research studies in major agriculture development programmes enjoying high national priority. This centre has in its own modest way, strived to build bridges of understanding between ground realities and macro public policies. It has provided worthwhile feedback in the formulation of policies relating to agriculture and rural development in Gujarat and Rajasthan. Collection of high quality field data has been a widely recognized hallmark of our field research.

The year was marked by with some important changes and events. The Centre got new full time Director (Dr. S.S. Kalamkar) who had joined on July 5, 2012. He had also taken over additional charge as Hon. Director of Cost of Cultivation Scheme. The Centre has completed three research projects during the period under report. The Governing Body has taken very important and staff supporting decisions in its meeting held on January 28, 2013.

Apart from undertaking the research studies in the area of agriculture and rural development, the faculty of the Centre participated in seminars, conferences, workshops, group discussions on field and various meetings. The wide ranging activities of the Centre as summarized in the report are truly gratifying. I congratulate the Director, faculty and staff of the Centre for their excellent performance and sincere efforts in furthering the attainment of the objectives of the Centre.

The challenges faced by the AERC during the year under report were delay in receipt of grant-in-aid from Ministry of Agriculture; some important administrative decisions proposed to be adopted by the Ministry deserve more careful consideration with the help of distinguished senior experts.

I am sure the coming years will see larger output of quality research, more publications, effective communications, and more collaborative work.

Dr. Harish Padh
Chairman, Governing Body AERC &
Vice Chancellor, S.P. University, Vallabh Vidyanagar, Anand, Gujarat
From the Director’s Desk

I am happy to present before you annual report of Agro-Economic Research Centre for the period from April 2012 to March 2013. The report serves the twin objectives of self appraisal of our performance and of sharing information about the academic activities of the Centre with our well wishers, supporters and other interested groups and individuals. A wider circulation of this document helps us in getting valuable feedback from our well-wishers and policy makers for making our studies and dialogues more relevant to the emerging needs.

I feel privileged to prepare this document and present it before you. I joined AERC on July 5, 2012 as Director & Professor. I am also handling the additional charge as Hon. Director of ‘Comprehensive Scheme for Studying Cost of Cultivation of Principal Crops in Gujarat’ (which is also fully financed by the Union Ministry of Agriculture). I joined the AERC after serving for more than ten years as a faculty member with Gokhale Institute of Politics and Economics, Deemed University, Pune.

The activities of the Centre during the year under report include both research programmes and other academic activities aimed at the dissemination of knowledge gained through research. The faculty members have participated in several academic activities. During the year under report, Centre has submitted three research projects. Recognizing the importance of library and computer support for academic activities, we upgraded both these support systems. While our activities expanded and studies deepened further, the availability of timely and adequate funding has continued to limit our ability to undertake the strengthening of academic support system and to initiate academic activities.

We continue to strive for attaining new goals and open up new avenues for our academic endeavors. This is possible only though the hard work of all staff members, guidance received from the esteemed members of the Governing Body of AERC, and the support as well as appreciation from a number of individuals as well as organizations within and outside the country.

I wish to express my grateful thanks to Chairman and the members of the Governing Body; Directorate of Economics and Statistics, Ministry of Agriculture, Government of India, New Delhi; Planning Commission, Government of India, New Delhi; Agriculture Department, Government of Gujarat, Gandhinagar; Agriculture Department, Government of Rajasthan, Jaipur; Officers of SP University, several government and non-government organizations and individuals for their support in various ways to the Centre. I wish to place on record my appreciation of the excellent work done by the faculty and useful support provided by the supporting staff of the AERC and CCS, who worked hard during the year for achieving newer heights of academic attainments.

S.S. Kalamkar
Director
**Highlights of the Year**

- Dr. S. S. Kalamkar joined as a full time Director of Agro-Economic Research Centre, S. P. University, Vallabh Vidyanagar on 05.07.2012.

- Dr. S. S. Kalamkar has also taken over charge as ‘Honorary Director’ of Comprehensive Scheme for studying cost of cultivation of Principal Crops in Gujarat which is also fully sponsored by Union Ministry of Agriculture, New Delhi, w.e.f. 05.07.2012.

- The faculty and the research staff members of the Centre completed three projects and seven projects under progress.

- The faculty brought out four books, published more than thirty research papers/articles in journal/seminar proceedings and participated in many seminars, conferences, workshops and training programmes.

- A meeting of AERC Governing Body was held on January 28, 2013 and many important and staff supporting decisions were taken such as enhancement in CPF contribution; revision of consolidated amount of remuneration payable to contracted personnel (computer, clerk, and peon) under Cost of Cultivation Scheme; Creation of Centre Development Fund (CDF); starting of Foundation Day Lecture Series, Faculty Seminar Series, Working Paper Series; formation of Technical Advisory Committee; period of probation and post-wise qualification requirement; adoption of rules pertaining to consultancy and participation in seminar/conferences, etc;

- Opened a separate saving account with Corporation Bank for CCS.

- Implemented the enhancement of Fellowship amount of Research Fellows as per UGC Rule.

- The students of B.A. College of Agriculture, Anand Agricultural University, Anand visited AERC on September 4, 2012 as a part of their ‘Rural Work Experience Programme’.

- Prof. Vijay Paul Sharma, Centre for Management in Agriculture, Indian Institute of Management (IIM), Ahmedabad; Dr. Madhusudan Bhattarai, Principal Scientist (Economics), International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), Patancheru 502 324, Andhra Pradesh; Shri Rashmikant Pandya, Director, Directorate of Economics and Statistics, Government of Gujarat, Gandhinagar 382009 and Shri Anil Patel, Manager (SAS Division), National Dairy Development Board (NDDB), Anand visited the Centre.
The Governing Body meets once a year under the Chairmanship of Vice Chancellor to discuss wide ranging issues including technical administrative and financial matters of the Centre.

Composition of the Governing Body

- **Dr. Harish Padh**  
  Vice Chancellor,  
  Sardar Patel University, Vallabh Vidyanagar.  
  *(Chairman)*

- **The Economic and Statistical Adviser or his nominee**  
  Directorate of Economics & Statistics,  
  Department of Agriculture and Cooperation,  
  Ministry of Agriculture, Govt. of India, New Delhi.  
  *(Ex. Officio Member)*

- **Dr. V. S. Vyas**  
  Professor Emeritus,  
  Institute of Development Studies, Jaipur, Rajasthan; &  
  Member, Economic Advisory Council to the Prime Minister  
  *(Permanent Invitee)*

- **Dr. Y. K. Alagh**  
  Professor Emeritus,  
  Sardar Patel Institute of Economic & Social Research,  
  Ahmedabad &  
  Chancellor, Central University of Gujarat, Gandhinagar, Guj.  
  *(Permanent Invitee)*

- **The Principal Secretary or his nominee,**  
  Department of Agriculture and Cooperation,  
  Government of Gujarat,  
  Gandhinagar, Gujarat.  
  *(Ex. Officio Member)*

- **The Principal Secretary or his nominee,**  
  Department of Agriculture,  
  Government of Rajasthan,  
  Jaipur, Rajasthan.  
  *(Ex. Officio Member)*

- **Dr. Sudarshan Iyengar**  
  Vice Chancellor,  
  Gujarat Vidyapith, Ahmedabad, Gujarat.  
  *(Member)*

- **Dr. Amita Shah**  
  Director,  
  Gujarat Institute of Development Research,  
  Ahmedabad, Gujarat.  
  *(Member)*
• Dr. Surjit Singh
  Director,
  Institute of Development Studies,
  Jaipur, Rajasthan.

  (Member)

• Head,
  P.G. Department of Economics,
  S. P. University, Vallabh Vidyanagar.

  (Ex. Officio Member)

• Dr. Mahesh Pathak
  Honorary Advisor,
  Agro-Economic Research Centre,
  S. P. University, Vallabh Vidyanagar.

  (Ex. Officio Member)

• Dr. S. S. Kalamkar
  Director,
  Agro-Economic Research Centre,
  S. P. University, Vallabh Vidyanagar.

  (Ex. Officio Member)

• Dr. (Mrs.) Rajeshree Dutta
  Deputy Director,
  Agro-Economic Research Centre,
  S. P. University, Vallabh Vidyanagar.

  (Ex. Officio Member)
About the Centre

The Agro-Economic Research Centre (AERC) for the states of Gujarat and Rajasthan was established in July 1961 at the Sardar Patel University, Vallabh Vidyanagar by the Directorate of Economics and Statistics, Ministry of Agriculture, Government of India, New Delhi. It was late Shri H.M. Patel (ICS retd.) who not only provided the vision for establishing such an Institute but also ensured the much needed support and encouragement for its growth at VallabhVidyanagar. AERC has been working as an associate institution of S. P. University and enjoying autonomy status in its working. The Centre has completed 52 glorious years (1961-2013) of its journey marked by both achievements and challenges. During these years, the Centre has emerged as a strong policy feedback centre of the Ministry of Agriculture, Government of India due to hard work and strong commitment of the staff in the Centre. The focus of research effort in the initial stage was on comprehensive village surveys and resurveys in order to understand the process and direction of change at the village level. Subsequently, the emphasis of research has shifted to problem oriented studies. The Centre has by now completed 152 problem-oriented studies, 21 village surveys and 4 village resurveys. Most of these research projects have been taken up by Centre on the recommendation of the Government of India and State Governments of Gujarat and Rajasthan. Some of the projects have also been sponsored by other national and international organizations. During its long journey, the Centre has brought remarkable improvement in every aspect of research including methodological base of the studies. The studies have come out with useful findings and policy implications for agricultural and rural development of the states of Gujarat and Rajasthan. Many seminars and conferences were organized by the Centre (jointly with Department of Economics) during these years. Since 1970, the Centre has been also organizing the work of Comprehensive Scheme to Study Cost of Cultivation of Principal Crops in Gujarat entrusted to the S P University by the Ministry of Agriculture, Government of India. Ever since its inception, the Centre has been working in close collaboration with the Post-graduate Department of Economics of the S. P. University and so far it has helped/supported about 35 scholars to successfully complete their Ph. D. work in agricultural economics.

The principle objectives of the Centre have been as follows:

1. To make continuous study of the change in rural economy by means of surveys of villages each year, to be repeated after an interval of five years.

2. To conduct ad-hoc investigation on problems of interest to the Ministry of Agriculture and Irrigation and the State Governments under their jurisdiction.

3. To undertake research on fundamental problems relating to the agricultural economy of the country, and

4. To give technical advice to the Government of India and to the State Governments on such important issues as, with mutual agreement, may be referred to the Centre.
Studies on cost of production of agricultural commodities have been of interest to research workers and policy-makers. The need for reliable and representative estimates about cost of production of agricultural crops is obvious for formulating an appropriate strategy for planned agricultural development.

In a vast country like India with marked variations in agro-climatic conditions, it becomes essential to collect State-wise, region-wise data on cost of production of various crops on a continuous basis. Recognizing the importance of such studies, the Directorate of Economics and Statistics, Ministry of Agriculture, Government of India, evolved a permanent arrangement for collection of cost of cultivation data on a continuous and uniform basis for all important crops in the country. The Directorate of Economics & Statistics decided to establish the Comprehensive Scheme for studying the cost of cultivation of principal crops in different states of India in 1968-69. The Directorate entrusted one such cost scheme to the Sardar Patel University for collecting cost of cultivation data in Gujarat. The University entrusted this Scheme to the Agro-Economic Research Centre. Since 1970, the Agro Centre and the Comprehensive Scheme are working together in close collaboration for serving the needs of the Directorate of Economics and Statistics of MoA, Government of India.

The data base generated through the “Comprehensive Scheme for Studying Cost of Cultivation of Principal Crops” is used not only for the primary purpose of providing cost estimates for determination of Minimum Support Prices (MSP) but for a wide variety of other important purposes like ‘Compilation of National Accounts Statistics’, Wholesale Price Indices (WPI) and research studies relating to cost of cultivation and farm income.

Up to 1982, cost of cultivation data in Gujarat were collected from 480 sample cultivators spread over 40 clusters of villages through cost accounting method. Under the old arrangement (known as single crop approach) the clusters were changed every year retaining only a sub-sample of 10 to 20 clusters. Since 1983, the single crop approach has been replaced by crop complex approach under which the numbers of clusters have been increased from 40 to 60 thereby providing a wider and varied base for generation of reliable estimates. Now ten principal crops of Gujarat Viz., Bajra, Groundnut, Cotton, Arhar and Onion, Paddy, Wheat, Maize, and Rapeseed/Mustard and Sesame are being studied continuously and simultaneously for three consecutive years in the same clusters of villages. At present, there is a sample of 600 cultivators (10 each from selected clusters) drawn from different size groups of holdings. The five size groups are: below 1.0 hectare, 1.0 to 2.0 hectare, 2.0 to 4.0 hectare, 4.0 to 6.0 hectare, 6.0 hectare and above.

The work of this Scheme is being looked after by 78 persons of which 60 are permanently posted in the villages spread over entire State of Gujarat. This Scheme is being fully financed by the Government of India.
## Academic Staff / Faculty Members

**AERC**

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<tr>
<td><strong>Dr. S. S. Kalamkar</strong></td>
<td>Director/Professor</td>
<td>M. Sc. (Agri), Ph. D. in Agricultural Economics</td>
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<tr>
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<tr>
<td><strong>Dr. Mrutyunjay Swain</strong></td>
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<tr>
<td><strong>Dr. S.R. Bhaiya</strong></td>
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Projects Completed & in Progress

Projects Completed

1. Title of the Project : “State of Rajasthan Agriculture 2011-12”
   Authors : Dr. Mrutyunjay Swain, Dr. S. S. Kalamkar and Shri Manish Kant Ojha.
   Sponsored by : Ministry of Agriculture, Govt. of India, New Delhi
   Coordinating Centre : Ministry of Agriculture, Govt. of India, New Delhi
   Date of Commencement : May 7, 2012
   Date of Submission : December, 2012 (final report submitted)

Objective of the project:

- To evaluate the performance of agriculture in the State of Rajasthan in the recent years and also present what could be the future options, given our objectives of accelerated growth, inclusiveness and reduction of poverty.

Major Findings:

Agriculture and allied sector plays an important role in State’s economy. Though its contribution in NSDP (at constant prices) has fallen from about 35 per cent in 1990-91 to around 23 per cent in 2011-12, agriculture yet forms the backbone of state economy. Around two third of its population (56.5 million) is still dependent on agricultural activities for their livelihood. Though agriculture forms the source of livelihood of the majority in the state, it is largely dependent on rainfall. Only 34.5 per cent of the net sown area is irrigated. There has been a shift from the traditional agrarian economy towards a service dominated one. However, the decrease in agriculture’s contribution to NSDP has not been accompanied by a matching reduction in the share of agriculture in total employment. The structural changes in Rajasthan agriculture have been in favour of growing more of oilseeds, pulses and horticultural crops. Rajasthan is India’s largest producer of mustard, pearl millet (*bajra*), and three spices (coriander, cumin, and fenugreek), cluster beans, isabgol and second largest producer of maize. The reliance on livestock has also increased because of risky rainfed agriculture. Due to frequent climatic aberrations, the growth performance of agriculture in Rajasthan during last two decades has been fluctuating. The agricultural production has decreased from 160.38 lakh tons in 1990-91 to 138.09 lakh ton in 2000-01. Also, yield level has declined from 748 kg/ha in 1990-91 to 718 kg/ha in 2000-01. However, after 2000-01, the growth in area, production and yield has been steady. The share of the state’s food grains production in national basket has increased by 3.6 percent points, i.e. from 6.2
per cent in 1990-91 to 9.8 per cent in 2010-2011. It was good to find that the state utilized about 39.42 per cent of its total electricity in agriculture alone. However, it is a matter of concern that the Gross Fixed Capital Formation (GFCF) in agriculture & allied sector as percentage of total GFCF has declined from 10.8 per cent in 2005-06 to 6.2 per cent in 2010-11 in Rajasthan. The existing marketing and warehouse facilities in the state were found to be inadequate to meet the demands of the farmers. There are many other challenges to be addressed systematically so as to accelerate the agricultural growth in the state. Some of the major challenges for agriculture sector in Rajasthan include the expansion of irrigation provisions and efficient water management, low productivity, unfavorable prices and practically very little value addition, distress sales, rising cost of cultivation, increasing agricultural exports, greening the desert through agro-forestry programmes, up-scaling of farm-validated modern technologies and agricultural Innovations, and proper institutional mechanisms and organizational and management (O&M) reforms for overcoming the felt constraints coming in the way of farm prosperity in the state.

2. Title of the Project: “State of Gujarat Agriculture 2011-12”
   Authors: Dr. Mrutyunjay Swain, Dr. S. S. Kalamkar, Ms. Kalpana M. Kapadia
   Sponsored by: Ministry of Agriculture, Govt. of India, New Delhi
   Coordinating Centre: Ministry of Agriculture, Govt. of India, New Delhi
   Date of commencement: May 7, 2012
   Date of Submission: December, 2012 (final report submitted)

Objective of the project:
- To evaluate the performance of agriculture in the State of Gujarat in the recent years and also presents what could be the future options, given our objectives of accelerated growth, inclusiveness and reduction of poverty.

Major Findings:
This study is based on the secondary data collected from various published sources. The reference period of the study is 2007-08 to 2011-12. The study finds that the growth performance of agriculture in the state has been satisfactory in the last five years during which agricultural NSDP at current prices has been more than doubled. Though the contribution of agriculture and allied sector in NSDP has gradually declined from around 50 per cent during 1970s to around 21.6 per cent in 2010-11, agriculture is still considered as a backbone of state economy. About 11 million workers are engaged in farming, out of which majority are small or marginal farmers. As far as the change in cropping pattern is concerned, the share of area under cotton and wheat crop to
total gross cropped area has significantly increased during last two decades. The increase in area under horticultural crops has also contributed considerably towards the change in cropping pattern of the state. The state occupied 4th, 6th and 3rd position at all India level in the production of fruit, vegetable and spices, respectively during 2010-11. The growth performance of agriculture in Gujarat has been fluctuating across the plan periods. There are many challenges to be addressed systematically so as to accelerate the agricultural growth in the state. Some of the major challenges for agriculture sector in Gujarat include the expansion of irrigation provisions through developing micro-level water resources in rainfed areas of the state, ensuring efficient water management through micro-irrigation systems, reducing wide fluctuation in agricultural output, productivity and prices, checking distress sales of agricultural output and rising cost of cultivation, making institutional credit available for a large section of marginal and small farmers so that agriculture in the state will be able to promote inclusiveness.

3. Title of the Project: "Problems and Prospects of Oilseeds in Rajasthan: Special Reference to Rapeseed Mustard"

Author: Dr. Mrutyunjay Swain
Associated Staff: Shri Manish Kant Ojha, Ms. Kalpana Kapadia, Shri Natvar Chauhan.
Sponsored by: Ministry of Agriculture, Govt. of India, New Delhi
Coordinating Centre: Centre for Management in Agriculture, Indian Institute of Management, Ahmedabad

Date of Commencement: February, 2012
Date of Submission: February, 2013

Objectives of the project:

1. To examine trends and pattern of growth of different edible oilseeds over time and across states/districts and identify the sources of growth in edible oilseeds output in the state;

2. To determine the impact of price and non-price factors influencing the supply response behavior and demand for edible oilseeds and oil in the state; and

3. To identify major constraints in the edible oilseed and oil palm cultivation and suggest policy options to increase oilseeds production and productivity in the state.
Major Findings:

Rajasthan claims first position in the production of rapeseed-mustard in India with a share of 48.6 percent. The area under oilseeds especially under rapeseed-mustard has increased over the years starting from the early 1970's. The share of rapeseed-mustard in total oilseeds in the state has improved considerably accounting for 58.0 per cent of total area under oilseeds and 63.3 percent of total oilseeds production during TE 2009-10. The state also claims third position in production of sesamum (13.8%) as well as soybean (8.1%). Better adoption of technology in agriculture has generated a positive impact in the State through increase in the yield per ha.

The overall area expansion effect has been better for the irrigated area than the cultivated area for all reference periods except TE 2003-04 to 2009-10. The area under R&M (main oilseed crop) and wheat (main competing crop) has increased by 242.63 thousand ha (10.9%) and 295.02 thousand ha (13.8%) respectively between TE 1993-94 and TE 2009-10. Due to occurrence of frequent droughts in larger part of the state during the reference period, the area under oilseeds and other crop groups has fluctuated a lot.

The analysis on relative contribution of area, yield and their interaction to change in production of total oilseeds, main oilseed crop (rapeseed-mustard) and main competing crop (wheat) in the selected districts of Rajasthan reveals that interaction effect was found to contribute more to the change in production of total oilseeds during the overall period of TE1983-84 to TE 2009-10. The area effect was dominant during Period I (TE1983-84 to TE 1993-94) and yield effect was dominant during Period II (TE1993-94 to TE 2009-10). The yield effect played significant role for both main oilseed crop and competing crop in the state, particularly during the Period II. This was possible mainly due to healthy growth in supply of various agricultural inputs in the state.

For primary level data analysis, about 200 households were surveyed from 19 villages of three districts (Bharatpur, Kota and Tonk) of Rajasthan. The major oilseeds cultivated by the sample households were sesamum and soybean in Kharif and rapeseed-mustard in Rabi. About 59.7 quintals of rapeseed-mustard was produced per household, out of which, 59.3 quintals was sold at the average price of Rs 3021 per quintal. As far as the case of main competing crop (wheat) is concerned, 59.1 quintals was produced per household, out of which, 48.8 quintals was sold at the average price of Rs 1112 per quintal. The net income derived from cultivation of rapeseed-mustard was Rs 39374 per ha. The net income derived from the cultivation of wheat and coriander was Rs 26943 and Rs 26100 per ha, respectively which were much lower than that of rapeseed-mustard. However, the yield risk and price risk were marginally higher for the main crop. The coefficient of variation (CV) in yield and farm harvest price as the measure of yield risk and price risk for rapeseed-mustard was 28.4 per cent and 12.0 per cent respectively; whereas the same for wheat was 25.4 per cent and 11.0 per cent respectively.
The yield gap analysis revealed that the yield gap-I, i.e., the gap between the experimental yield and potential yield was -4.3, whereas the yield gap-II, i.e., the gap between the actual yield and potential yield was 5.6 q/ha. The yield gap-III, i.e., the gap between the experimental yield and actual yield (often known as extension gap) was found to be 1.3 q/ha. Among the three types of yield gap, the yield gap –II was found to be largest. About 96.5 per cent of the sample farmers have used HYVs for getting better yield of oilseeds. About 92 per cent of sample farmers have received the price of rapeseed-mustard which was higher than the prevailing MSP.

As far as the acreage allocation between main oilseed crop and competing crop by the sample farmers is concerned, the size of land holding (LS_t), one year lagged area of R&M (A_{t-1}), lagged yield of R&M (Y_{t-1}), lagged price of R&M (P_{t-1}), lagged area of wheat (AC_{t-1}) and the lagged price of wheat (PC_{t-1}) were found to have statistically significant influence on the area allocated for the main oilseed crop rapeseed-mustard.

Among the major constraints faced by the sample farmers, lack of irrigation facilities, incidence of diseases and incidence of insect pests, extreme variations in temperature, erratic rainfall pattern and the risk of crop failure/yield variability due to biotic and abiotic stresses, poor pod/grain setting were found to be the major technological and agro-climatic constraints for the sample farmers. Among the economic and institutional constraints, high input costs, shortage of human labour, irregular supply of electricity and problem of timely availability of good quality certified seeds were found to be major ones. As regards the issues of post-harvest marketing and value-addition, the sample farmers have faced problems due to inadequate storage facilities, exploitation by market intermediaries, high transportation costs and poor road infrastructure. A large proportion of the sample farmers have suggested to alleviate the major constraints through necessary policy instruments so as to increase the production and productivity of oilseeds in the state.
### Projects in Progress

<table>
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<tr>
<th></th>
<th>Title of the Project</th>
<th>“Pre and Post Harvest Losses in Gujarat and Rajasthan”</th>
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<tbody>
<tr>
<td></td>
<td>Name of Authors</td>
<td>Dr. (Mrs.) Rajeshree A. Dutta</td>
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<tr>
<td></td>
<td>Associated Staff</td>
<td>Shri Manish Makwana, Shri Himanshu Parmar</td>
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<td>Sponsored by</td>
<td>Ministry of Agriculture, Govt. of India, New Delhi</td>
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<td></td>
<td>Coordinating Centre</td>
<td>Institute for Economic and Social Change, Bangalore.</td>
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<td>Date of Commencement</td>
<td>January, 2012</td>
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<td>May, 2013</td>
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#### Objectives of the Study

- To study the bio-economic constraints faced by farmers in the production of rice, tur and soybean
- To estimate the physical and financial loss caused by pests and diseases in rice, tur and soybean at farm level
- To examine the measures of pest and disease management to reduce the crop loss due to pests and diseases at farm level.

<table>
<thead>
<tr>
<th></th>
<th>Title of the Project</th>
<th>“Assessment of Marketed and Marketable Surplus of Major Food grains in Rajasthan”</th>
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<tbody>
<tr>
<td></td>
<td>Authors</td>
<td>Shri V.D. Shah</td>
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<td>Associated Staff</td>
<td>Shri Manish Makwana, Shri Himanshu Parmar</td>
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<td></td>
<td>Coordinating Centre</td>
<td>Centre for Management in Agriculture, Indian Institute of Management, Ahmedabad</td>
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<td>April, 2013</td>
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</tbody>
</table>

#### Objectives of the Study

- To estimate marketable and marketed surplus of selected cereals, coarse cereals and pulses in Rajasthan
- To estimate farm retention for consumption, seed, feed, wages and other payments in kind, etc., and
- To relook the theory of the concept and estimation of marketed and marketable surplus taking into account various theoretical advances in demand theory and the relevant micro-economics as well as estimation theory.
3. Title of the Project: **“Problems and Prospects of Oilseeds in Gujarat”**

Principal Investigator: Dr. Mrutyunjay Swain

Associated Staff: Mr. Manish Kant Ojha, Ms. Kalpana Kapadia, Mr. Hinanshu Parmar, Mr. Natvar Chauhan.

Sponsored by: Ministry of Agriculture, Govt. of India, New Delhi

Coordinating Centre: Institute for Economic and Social Change (ISEC), Bangalore.

Date of Commencement: February, 2012

Expected Date of Submission: April, 2013

Objectives of the Study:

- To examine trends and pattern of growth of different edible oilseeds over time and across states/districts and identify the sources of growth in edible oilseeds output in Gujarat;
- To determine the impact of price and non-price factors influencing the supply response behavior and demand for edible oilseeds and oil in the state;
- To identify major constraints in the edible oilseed and oil palm cultivation and suggest policy options to increase oilseeds production and productivity in the state.

4. Title of the Project: **“Evaluation of Market Intervention and Price Support Scheme in Rajasthan”**

Authors: Dr. S.S. Kalamkar

Associated Staff: Shri Manish Ojha and Shri T.B. Parihar

Sponsored by: Ministry of Agriculture, Govt. of India, New Delhi

Coordinating Centre: Institute of Economic Growth (IEG), New Delhi.

Date of Commencement: August 6, 2012

Expected Date of Submission: April, 2013

Objectives of the Study:

- To understand coverage of MIS and PSS across crops and regions of India
- To ascertain factors that influence coverage of crops across regions
- To understand levels and basis of participation of farmers in MIS and PSS
- To understand problems of different stakeholders in operation of MIS and PSS
- To study the effect of MIS and PSS on the market price of commodity in the targeted region
- To assess efficiency of Central Agencies in operation of MIS and PSS
- To suggest policy measures to improve operations of MIS and PSS.
5. Title of the Project: “Preparation of database on 15 Major Indicators of Agricultural Performance in Gujarat and Rajasthan”

Name of Authors: Dr. Mrutyunjay Swain
Associated Staff: Shri Manish Kant Ojha & Ms. Kalpana Kapadia
Sponsored by: Ministry of Agriculture, Govt. of India, New Delhi
Coordinating Centre: Institute for Economic and Social Change, Bangalore.
Date of Commencement: January, 2012
Expected date of Submission: Quarterly – On going project.

Objective of the Study:
• Preparation of database on 15 Major Indicators of Agricultural Performance in Gujarat and Rajasthan on quarterly basis.

6. Title of the Project: “Review of Evidence on Farmers Income from Secondary Sources”

Principal Investigator: Dr. S.S. Kalamkar
Sponsored by: Ministry of Agriculture, Govt. of India, New Delhi
Date of Commencement: Not Yet Started
Expected date of Submission: Not Yet Started
(Study Framework not yet received from the Coordinator of the Project)

Objectives of the Study:
• To review the evidences on farmers' income from secondary sources.

7. Title of the Project: “Pilot Project to ascertain the Use of Diesel for Irrigation”

Principal Investigator: Dr. S.S. Kalamkar
Sponsored by: Ministry of Agriculture, Govt. of India, New Delhi
Date of Commencement: Not Yet Started
Expected date of Submission: Not Yet Started (Study Framework not yet received from the Coordinator of the Project)

Objectives of the Study:
• To study the use of diesel in Irrigation
List of books and research articles published during the year:

A) Research Articles Published:

- “Impact of the National Horticulture Mission Scheme in Rajasthan”, Agricultural Situation in India, Vol.69, No.3, June 2012, pp-153-164 (ISSN: 0002-167), AERC, Vallabh Vidyanagar.


• “Rural Credit for Globalizing Farmers: A Study of Credit plus Approach”, in *Paper Abstracts* for discussion at the discussion at the 26th National Conference of the Indian Society of Agricultural Marketing (ISAM), *Abstract* (with S. Shroff), by S. S. Kalamkar.

• “Impact of the National Horticulture Mission Scheme in Rajasthan’, *ArthaVikas*, Vol.49, No.1, Jan-June 2013, pp. 1-19 (ISSN: 0004-3567), by Mrutyunjay Swain and Manish Kant Ojha.


B) Books Published/ Edited Books-


C) Article in Edited Books/ Seminar Proceedings

- “Food Security in South Asia and Its Sustainability: Focus on India”, in paper abstract (participants handbook), 28th Triennial Conference of the International Association of Agricultural Economists (IAAE), Foz do Iguacu, Brazil, August, 2012 (jointly with S. Shroff), Summary, pp.228-229, by S.S. Kalamkar.

- “Role of Emerging Marketing Channels in Agriculture and the Benefits to the Producers and Consumers: An Empirical Analysis”, in International Seminar Proceeding on 'Organized Retailing vis-à-vis Farm Economy and Relevance', Centre for Economic and Social Studies (CESS), Hyderabad, September, 2012, PP. 89-102, by SangeetaShroff and S.S. Kalamkar and JayantiKajale.


D) Book Reviews/Articles/Abstracts in Magazines and Newspapers:


E) Studies/Articles Submitted for Publication in National Journals:

• “Biotechnology in Indian Agriculture: Review of Adoption and Performance of Bt Cotton” submitted to consider for publication in Millennial Asia (International Journal), by S.S. Kalamkar.

• “Rural Credit for Globalizing Farmers through Credit plus Approach: An Empirical Study”, (with Sangeeta Shroff), submitted to consider for publication in Agricultural Economics Research Review(with Sangeeta Shroff), by S. S. Kalamkar


• “Determinants of Agricultural Instability in Bolangir”, submitted to ANVES, by Mrutunjay Swain.


• “Sources of Growth and Instability in Agricultural Production in Western Odisha, India”, submitted to the Asian Journal of Agriculture and Development, by Mrutyunjay Swain.
Staff Meeting

Visit of Officers of the ICRISAT, Hyderabad
Participation in Conferences, Seminars, Workshops, Teaching, Work on Committees, Guidance to the Students, Other Academic Activities, etc

Dr. S. S. Kalamkar


- Participated and presented (visual presentation) a paper on “Food Security In South Asia and Its Sustainability: Focus on India” (jointly with Dr. S. Shroff) at the 28th Triennial Conference of the International Association of Agricultural Economists (IAAE), held at Foz do Iguacu, Brazil during August 18 to 24, 2012.

Also acted as a Organiser/Moderator for IAAE contributed paper Session No. 4.2.10 3333- on ‘Input Transfers’, on August 22, 2012 at the 28th Triennial Conference of the International Association of Agricultural Economists (IAAE), held at Foz do Iguacu, Brazil during August 18 to 24, 2012.

- Participated and presented the papers on “Role of Emerging Marketing Channels in Agriculture and the Benefits to the Producers and Consumers: An Empirical Analysis”, and “Promoting Organized Retail in Horticulture and Beneficial Impact on Farmers - The Case of Deepak Fertilizers and Petro Chemicals Limited”, (jointly with Dr. S. Shroff and J. Kajale) at the two-day International Seminar on ‘Organized Retailing vis-à-vis Farm Economy and Relevance’, organized jointly by Centre for Economic and Social Studies (CESS), Hyderabad in collaboration with the Indian Society for Agricultural Marketing and the Institute of Public Enterprise, Hyderabad at CESS, Hyderabad during September 21-22, 2012.

- Participated and presented a paper on “Inputs and Services Delivery System under Contract Broiler Farming”, at the 20th Annual Conference of the Agricultural Economics Research Association (India), held at Division of Agricultural Economics, IARI, New Delhi during 9-11 October, 2012.
- Participated at the UGC sponsored National Seminar on “Human Development”, organized by Post-Graduate Department of Economics, UGC Centre of Advanced Studies (CAS-I), Sardar Patel University, Vallabh Vidyanagar during November 1-2, 2012.

  Also acted as a Chairman of the Technical Session II of the said national seminar.

- Participated at the National Seminar on “Agrarian Crisis in India: the way Out”, held at National Institute of Rural Development (NIRD), Hyderabad during November 5-7, 2012 and presented a paper on “Agrarian Crisis and Food Security in India”.

  Also acted as a Discussant for two papers of Technical Session VII on ‘Agricultural Distress and Regional Dimensions’ of above mentioned seminar.


  Also acted at a Chairman of Session S09 on 'Silver Bullets to Spur Agrarian Growth: Growing Evidence from Here and There', on November 29, 2012.


- Attended Late Shri Bhaikaka Memorial Lecture No. 40 delivered by Dr. Y. K. Alagh on “Sardar Sarovar Project” at BVM College of Engineering, Vallabh Vidyanagar on January 9, 2013.


  Also acted as a Chairman of the Technical Session II on “Prospects and Problems of Foreign trade in Livestock and dairy Products”.

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- Attended the 43rd Annual Conference of Gujarat Economic Association organized by N.S. Patel Arts College, Anand, during February 1-3, 2013.

- Evaluated thesis and offered Expert Comments on Ph.D. Thesis/theses received from University of Agricultural Sciences, Dharwad (Karnataka) and University of Pune, Pune (Maharashtra).

- Evaluated three M.Sc. Agricultural Economics thesis/theses received from Dr. Panjarbao Deshmukh Krishi Vidyapeeth, Akola, Maharashtra in July 2012 and March 2013.

- On the request of the President Elect of International Association of Agricultural Economists (IAAE), reviewed four contributed papers submitted for the 28th Triennial Conference of the IAAE held at Foz do Iguacu, Brazil during August 18 to 24, 2012.


- Reviewed and offered expert comments on the six papers presented at the National Seminar on “Agrarian Crisis in India: the Way Out”, held at National Institute of Rural Development (NIRD), Hyderabad during November 5-7, 2012 to be consider for publication in book form, by NIRD, Hyderabad.

- Worked as a Honorary Director, Cost of Cultivation Scheme (w.e.f. July 5, 2012); Public Information Officer, AERC and CCS, S.P. University, Vallabhb Vidyanagar since July 19, 2012.

- Arranged and attended the AERC Governing body Meeting on January 28, 2013 at the Centre.

- Continued guidance to the two Ph.D. Students (Registered at Gokhale Institute of Politics and Economics, Deemed University, Pune). Out of two, one student submitted her thesis for evaluation.
Participated in a brainstorming session held under the Chairmanship of Shri Ashish Bahugana, Secretary (Agriculture and Cooperation), Directorate of Economics and Statistics, Department of Agriculture and Cooperation, Ministry of Agriculture, Govt. of India, New Delhi, to discuss the variation in cost of cultivation/production of different crops across the states in India (with Dr. S.R. Bhaiya). Also visited the Office of Shri B.S. Bhandari, Adviser, DAC, DES, Ministry of Agriculture, Government of India, New Delhi.

Visited Agro-Economic Research Unit (AERU), Institute of Economic Growth (IEG), New Delhi for discussion with Project Coordinator of “Evaluation of Market Intervention and Price Support Scheme” during October 9-11, 2012.

Also visited Agro-Economic Research Centre, University of Delhi, Delhi; International Food Policy Research Institute (IFPRI), NASC, New Delhi; Department of Economics and Statistics (IARI), Pusa, New Delhi; National Centre for Agricultural Economics and Policy Research (NCAP), New Delhi.


Visited the Office of the Principal Secretary, Department of Agriculture and Cooperation, Government of Gujarat, Gandhinagar on January 22, 2013.

Visited the Roaster Cell of the Department of Social Justice and Empowerment, Government of Gujarat, Gandhinagar, Gujarat on January 22, 2013 to discuss issues related to roaster implementation in AERC and CCS.

Visited the office of the Directorate of Economics and Statistics (DES), Government of Gujarat, on January 22, 2013 to discuss the research proposal of DES to be undertaken by the AERC.

Attended the meeting with a team of researchers headed by Dr. R. N. Pandya, Director, Directorate of Economics and Statistics, Gandhinagar on 28th April 2013 on methodology and conceptual framework of the proposed study on “Estimation of Changes in Income and Cost of Production owing to Changes in Inputs and Hybrid Seeds for major Crops of Gujarat”.
➢ Worked as a Vice-President, *Indian Society of Agricultural Marketing (ISAM)*, Nagpur. Also worked as a State/Regional Representative of the *Indian Society of Agriculture Marketing* for the Maharashtra State.

➢ Worked as a Referee of the papers processed for Indian Journal Agricultural Marketing (IJAM), 2012-2013.


**Dr. (Mrs.) Rajeshree A. Dutta**

➢ Worked as an In-charge AERC up to 4th July, 2012.

➢ Attended Governing Body meeting of AERC held on 28th January 2013.

**Shri V. D. Shah**

➢ Participated in the UGC National seminar on “Human Development Status in Gujarat” organized under CAS, by Post Graduate Department of Economics, S. P. University, Vallabh Vidyanagar, Gujarat during 1st and 2nd November, 2012.

➢ Attended State Level Committee meeting for recommendation of Minimum Support Price of various kharif crops for kharif-2013, organized by Directorate of Agriculture, Govt. of Gujarat, Gandhinagar on 22.01, 2013.

➢ Delivered talk on “Importance of Agro-Economic Research Studies and how to make economic analysis of agricultural projects” to group of 80 students of Anand Agriculture University, Anand during their visit to centre under RAWE (Rural Agricultural work experience) programme on 4th November, 2012.

➢ Worked as Hon. Director of the Cost of Cultivation Scheme for Gujarat up to 4th July, 2012.
Dr. Mrutyunjay Swain

- Participated and presented a paper on “Coping With Drought: The Case of Rural Women in Western Odisha”, in the National Seminar on “Value Added Science Awareness to Strengthen Women’s Role in Climate Resilient Agriculture & Sustainable Development” held at Navsari Agricultural University Navsari during 3rd-4th January, 2013.


- Presented a paper on “Farmers Perception on Drought and Climate Change”, at the 3rd National Climate Change Conference held at Indian Institute of Science, Bangalore, November 2-4, 2012.

- Presented a paper by Co-author (Shri Shreekant Sharma) on “Impact of MGNREGA on Sustainable Development of Village Economy in Rajasthan”, at International Conference on Creating Sustainable Business: Managerial Implications and Challenges held at Jaipuria Institute of Management, Jaipur, December 7-9, 2012.


- Participated in the National Seminar on “Human Development Status in Gujarat” organised under CAS, by Post Graduate Department of Economics, S. P. University, Vallabhbhai Patel University, Gujarat-388 120, Gujarat during November 1-2, 2012 and also worked as a Rapporteur of one of the sessions.

- Delivered a talk to the students of B.A. College of Agriculture, Anand Agricultural University, Anand on 4th September, 2012 during their visit (RAWE Programme) to AERC, Vallabhbhai Patel University.

- Participated at the ‘Training Workshop on Ecology and Economics’ held at Gujarat Institute of Development Research, Ahmedabad during the period from November 29 to December 02, 2012.
 Completed the UGC sponsored Orientation Programme organized by UGC Academic Staff College, Sardar Patel University, Vallabh Vidyanagar from 6th May 2013 to 2nd June 2013 with ‘A’ grade.

 Attended the meeting of Project Coordinators of the research project, ‘Problems and Prospects of Oilseeds and Oil Palm Production in India - All-India Coordinated Study’ at IIM Ahmedabad on 16th April 2012.

 Attended the 9th Agricultural Research Sub Committee Meeting (AGRESCO) on Agricultural Economics, Agricultural Statistics and Extension Education of Anand Agricultural University, Anand held on 4th and 5th March 2013.

 Attended the meeting with a team of researchers headed by Dr. R. N. Pandya, Director, Directorate of Economics and Statistics, Gandhinagar on 28th April 2013 on methodology and conceptual framework of the proposed study on “Estimation of Changes in Income and Cost of Production owing to Changes in Inputs and Hybrid Seeds for major Crops of Gujarat”.


 Worked as member of Editorial Board of “Sustainable Agriculture Research”, an international journal published by Canadian Center of Science and Education, Toronto.

**Shri Manish Kant Ojha**


**Shri Manish Makwana**

- Participated and presented paper on “Human Development Status in Gujarat” at UGC National seminar on November 1-2, 2012 at Post Graduate Department of Economics, S.P. University, Vallabh Vidyanagar-388 120, Gujarat.


Ms. Kalpana Kapadia

➢ Participated in the UGC National Seminar on “Human Development Status in Gujarat” organized under CAS, by Post Graduate Department of Economics, Sardar Patel University, Vallabh Vidyanagar, Gujarat on 1st and 2nd November, 2012.

Shri Deep K. Patel

➢ Participated in the UGC National Seminar on “Human Development Status in Gujarat” organized under CAS, by Post Graduate Department of Economics, Sardar Patel University, Vallabh Vidyanagar, Gujarat on 1st and 2nd November, 2012.

Dr. S. R. Bhaiya


➢ Participated in a brainstorming Session held under the Chairmanship of Shri Ashish Bahugana, Secretary (Agriculture and Cooperation), Directorate of Economics and Statistics (DES), Department of Agriculture and Cooperation (DAC), Ministry of Agriculture, Government of India, New Delhi, to discuss the variation in cost of cultivation/production of different crops across the states in India (with Dr. S.S. Kalamkar).

Dr. S. S. Kalamkar

- Indian Society of Agricultural Economics (ISAE), Mumbai (Life Member)
- Indian Society of Agricultural Marketing (ISAM), Nagpur (Life Member)
- The Indian Economic Association (IEA), New Delhi (Life Member)
- Agricultural Economic Research Association (AERA), New Delhi (Life Member)
- Maharashtra Society of Agricultural Economics (MSAE), Pune (Life Member)
- Economic & Political Weekly Research Foundation (EPWRF), Mumbai (Annual Member)
- Association of Asian Scholars (AAS), New Delhi (Associate Membership)
- Indian Society of Agricultural Development and Policy, Ludhiana (Life Member)

Dr. Mrutyunjay Swain

- Member of Academic Council, Institute of Management and Development Action, Indore
- Member of the Editorial Board, Sustainable Agriculture Research, an International journal published by Canadian Center of Science and Education, Toronto.
- Life Member, Indian Society of Agricultural Economics, Mumbai
- Life Member, Indian Economic Association, New Delhi
- Member, South Asian Network for Development and Environment Economics
- Member, Indian Climate Research Network, New Delhi
- Member, Agricultural Economics Research Association, 2011
- External Member, IQAC team, R. N. Patel Ipcowala School of Law and Justice, VallabhVidyanagar.

Shri Manish Kant Ojha

- Life Member, Indian Society for Agricultural Economics.
- Life Member, Rajasthan Economic Association.

Shri Manish Makwana

- Life Member, Indian Economic Association
- Life Member, Indian Society for Agricultural Economics
- Life Member, Agricultural Economics Research Association (India)
- Life Member, Gujarat Economic Association
Shri Deep K. Patel

- Life Member, Gujarat Granthalaya Seva Sangh, Ahmedabad
- Alumni Association, Department of Library and Information Science, S.P.University, Vallabh Vidyanagar.

Display of AERC Report (1961-2013)
Dr. S. S. Kalamkar

- Field visit was conducted in Amudh (Unjha), Butapaladi (Mehsana) and Chadasana (Mansi) villages of CCS Cluster Zone III and VIII, Gandhinagar, Mehsana and Ahmedabad on 28/09/2012.

- Field visit was conducted in Dungari and Bojela villages in Zalod and Fatepura Cluster, Dahod District on 01.08.2012

- Field visit was conducted in Cluster No. 10 - Thuvavi (Dabhoi); Cluster No. 03 - Rundh (Nandod); Cluster No. 04 - Pathar (Valia) in Vadodara and Bharuch district Clusters on 27/02/2013.

Dr. Rajeshree A. Dutta

- For CCS: Visited Zalod and Fatehpura clusters of Dahod district; Unza and Mehsana clusters of Mehsana district; Mansa cluster of Gandhinagar district; Dabhoi cluster of Vadodara district, Valiya cluster of Bharuch district and Nandod cluster of Narmada district. The purpose of surprise visit to the cluster was on the spot checking and verification of collection of field data and to meet sample farmers for reviewing the agricultural scenario and to check conduct and behaviour of posted field man.

Shri V. D. Shah

- For CCS: Visited Zalod and Fatehpura clusters of Dahod district; Unza and Mehsana clusters of Mehsana district; Mansa cluster of Gandhinagar district; Dabhoi cluster of Vadodara district, Valiya cluster of Bharuch district and Nandod cluster of Narmada district. The purpose of surprise visit to the cluster was on the spot checking and verification of collection of field data and to meet sample farmers for reviewing the agricultural scenario and to check conduct and behaviour of posted field man.

Dr. Mrutyunjay Swain

- Visited Rajkot district for the field visit during primary data collection for the project on 'Problems and Prospects of Oilseeds Production in Gujarat' during 25th to 28th June, 2012
- Visited Kota district for the field visit during primary data collection for the project on 'Problems and Prospects of Oilseeds Production in Rajasthan' during 28th to 31st August, 2012

**Shri Manish Kant Ojha**

- Visited the districts namely Junagadh, Porbandar and Rajkot for Gujarat and Bharatpur, Tonk and Kota for Rajasthan and collected the data from 19 villages therein (Project: Problem and Prospects of Oilseed production in Rajasthan and Gujarat).

- Visited the districts namely Jaisalmer, Ajmer, Jodhpur, Jaipur, Kota and Baran and collected the data from 10 villages (Project: Evaluation of Price support and Market intervention scheme).

**Shri Manish Makwana**

- Conducted Field survey in selected villages of selected blocks/taluka of selected two districts of Gujarat state viz. Bharuch and Vadodara (Project: Assessment of Pre and Post Harvest Losses of Tur in Gujarat).

- Conducted Field survey in selected villages of selected blocks/taluka of selected two districts of Rajasthan state viz. Chittorgarh and Jhalawar. (Project: Assessment of Pre and Post Harvest Losses of Soybean in Rajasthan).

- Conducted Field survey in selected villages of selected blocks/taluka of selected five districts of Rajasthan state viz. Alwar, Hanumangarh, Churu, Chittorgarh and Udaipur (Project: Assessment of Marketed and Marketable Surplus of Major Food grains in Rajasthan state).

**Ms. Kalpana Kapadia**

- Conducted field survey in selected blocks of selected districts of Gujarat namely Junagadh, Rajkot and Porbandar, Manavadar, Vishavadar and Una (special Reference to Groundnut).

- Conducted field survey in selected blocks of selected districts of Rajasthan namely Bharatpur, Kota and Tonk, Nandbai (special Reference to Rapeseed and Mustard).
Shri Thansingh Parihar

- Conducted Field survey in selected villages of selected blocks/taluka of selected five districts of Rajasthan state viz. Alwar, Hanumangarh, Churu, (Project: Assessment of Marketed and Marketable Surplus of Major Food grains in Rajasthan state).

- Visited the districts namely Jaisalmer, Ajmer, Jodhpur, Jaipur, Kota and Baran and collected the data from 10 villages (Project: Evaluation of Price support and Market intervention scheme).

Shri H. P. Parmar

- Visited the districts namely Junagadh, Porbandar and Rajkot for Gujarat and Bharatpur, Tonk and Kota for Rajasthan and collected the data from 19 villages therein (Project: Problem and Prospects of Oilseed production in Rajasthan and Gujarat).

- Field survey conducted in selected villages of selected blocks/taluka of selected two districts of Rajasthan state viz. Chittorgarh and Jhalawar. (Assessment of Pre and Post Harvest Losses of Soybean in Rajasthan).

- Field survey conducted in selected villages of selected blocks/taluka of selected two districts of Rajasthan state viz. Chittorgarh and Udaipur (Assessment of Marketed and Marketable Surplus of Major Food grains in Rajasthan state).

Shri Natvar G. Chauhan

- Visited the districts namely Junagadh, Porbandar and Rajkot for Gujarat and Bharatpur, Tonk and Kota for Rajasthan and collected the data from 19 villages therein (Project: Problem and Prospects of Oilseed production in Rajasthan and Gujarat).


Dr. S. R. Bhaiya

- Field visit was conducted in Amudh (Unjha), Butapaladi (Mehsana) and Chadasana (Mansi) villages of CCS Cluster Zone III and VIII, Gandhinagar, Mehsana and Ahmedabad on 28/09/2012.
- Field visit was conducted in Dungari and Bojela villages in Zalod and Fatepura Cluster, Dahod District on 01.08.2012

- Field visit was conducted in Cluster No. 10 - Thuvavi (Dabhoi); Cluster No. 03 - Rundh (Nandod); Cluster No. 04 - Pathar (Valia) in Vadodara and Bharush district Clusters on 27/02/2013.

**Shri B. P. Pandya**

- Field survey conducted in selected villages of selected block of sample Bharuch and Vadodara of Gujarat State (Pre and Post Harvest Losses in Tur).
- Surprise visit to Tarapur cluster (HQ.Village- Khanpur) on 31/05/2012.
- One day tour to Bharuch in order to collect secondary data and useful literature for AERC project on 04/06/2012.
- Cluster visit for field supervision of five Tehsils namely, Tarapur, Khambhat, Savli, Sankheda and Pavijetpur from 24/07/2012 to 28/07/2012.
- Cluster visit for field supervision of five Tehsils namely, Tarapur, Khambhat, Savli, Sankheda and Pavijetpur from 26/10/2012 to 02/11/2012.
- Cluster visit for field supervision of five Tehsils viz, Rajkot, Lodhika, Gondal, Jetpur and Wankaner from 29/11/2012 to 10/12/2012.
- Cluster visit for field supervision of five Tehsils namely, Tarapur, Khambhat, Savli, Sankheda and Pavijetpur from 26/10/2012 to 02/11/2012.
- Cluster visit for field supervision of five Tehsils viz, Rajkot, Lodhika, Gondal, Jetpur and Wankaner from 29/11/2012 to 10/12/2012.
- Cluster visit for field supervision of five Tehsils viz, Rajkot, Lodhika, Gondal, Jetpur and Wankaner from 29/11/2012 to 10/12/2012.
- Cluster visit for field supervision of five Tehsils viz, Rajkot, Lodhika, Gondal, Jetpur and Wankaner from 20/02/2013 to 27/02/2013.
- Cluster visit for field supervision of five Tehsils namely, Tarapur, Khambhat, Savli, Sankheda and Pavijetpur from 14/03/2013 to 20/03/2013.

**Shri H.P.Makwana**

- Completed Field Visit of two clusters namely Mahudha and Mahemdvad (Zone-4) and three Clusters namely Sahera, Zalod and Fatepura (Zone-3) in July, 2012 & October. –November.2012.

- Completed field visit of five clusters namely Una, Saver Kundla, Liliya, Lathi and Kukavav (Zone-6) and two clusters namely Bhavnagar and Vallabhipur (Zone-5) in December, 2012.
• Completed field visit of two clusters namely Palitana and Mahuva (Zone-6) and one cluster namely Gadhada (Zone-7) in January, 2013.

• Completed Field Visit of two clusters namely Mahudha and Mahemdavad (Zone-4) and Three Clusters namely Sahera, Zalod and Fatepura (Zone-3) in February, 2013.

• Completed field visit of five clusters namely Una, Saver Kundla, Liliya, Lathi and Kukavav (Zone-6) in March, 2013.

• Completed primary data collection work for the project titled “Pre and post-harvest losses in tur” of AERC, during 15 to 27th June, 2012 In Bharuch and Vadodara District of Gujarat.

Shri H. U. Padhiyar

• Completed Field Visit of five clusters namely Unja, Mehsana and Himatnagar Talod Dhansura( Zone 4) in July, 2012.

• Completed Field visit of four clusters namely Jam-Jodhpur (Zone 7)Visavadar, Talala, Sutrapada (Zone 6) in Oct’November, 2012.

• Completed Field visit of four clusters namely Nadod, Valia (Zone 2)Valod and Songarh (Zone 1) in December, 2012.

• Completed Field visit of one cluster Dhansura (Zone 4) in December, 2012.

• Completed Field visit of tree cluster Mehsana and HimatnagarTalod (Zone 4) in January, 2013.

• Completed Field visit of one cluster Unja (Zone 4) in January, 2013.

• Completed Field visit of one cluster Dhansura (Zone 4) in March, 2013.

• Completed Field visit of one cluster Dabhoi (Zone 3) in January, 2013.

• Completed Field Visit of five clusters namely Jam-Jodhpur (Zone 7) Visavadar, Junagarh Sutrapada Talala, (Zone 6) in April & May, 2013.
Officers’ Surprise CCS Field Visit

Officers’ Surprise Field Visit
Research Support Services

Recognizing the importance of library and computer support for academic activities of the faculty and staff, we upgraded both these support systems.

A) Library:

The Centre has a separate library of its own. Many journals, magazines and research reports of different Agro-Economic Research Center's as well as known institutes like IIM (Ahmedabad), IRMA (Anand); IEG, New Delhi; GIDR, Ahmedabad, GPE, Pune; State Government Publications, etc. are regularly arriving in our library. Apart from AERC and CCS research staff, this also helps the PG students of Department of Economics and other researchers to carry out their research smoothly and effectively particularly in the field of agriculture & rural development.

Journals Subscribed/Gift:

During the academic year 2012-13, the library subscribed to 10 periodicals which include 5 Indian journals and 5 magazines/weekly.

Subscribed:
1. Agricultural Economics Research Review (AERR)
2. Agriculture Today
3. Artha Vikas
4. Bhumi Putra
5. CAB Calling
6. Down to Earth
7. Economic & Political Weekly (EPW)
8. Indian Journal of Agricultural Economics (IJAE)
9. India Journal of Labour Economics (IJLE)
10. Indian Journal of Fertiliser (IJF)
11. Indian Journal of Agricultural Marketing (IJAM)
12. Indian Today
13. Journal of Rural Development
14. The Economist
15. Yojana

Gift:
1. Agricultural Situation in India
2. Krushi Govidya

Books Purchased:
The Library added sixty five books to its collection during in April 2012 to March 2013.
B) Seminar Hall:-

The Seminar hall housed in the Centre is well-equipped with all facilities created with the financial support of CCS, Ministry of Agriculture, Government of India.

Inuguration of Seminar Hall on 28.01.2013 by Dr. Haraish Padh, Vice Chancellor, SPU, VVN
C) **Computer Centre:**

The Computer Centre housed in the Cost of Cultivation Scheme, AERC is well-equipped with hardware and software to support the research and training programmes of the Centre. In the computer laboratory, staff have access to the internet both for reference work and communication.
Academic Events and Visitors at the Centre

- The students of B.A. College of Agriculture, Anand Agricultural University, Anand visited AERC on September 4, 2012 as a part of their 'Rural Work Experience Programme'. Dr. S.S. Kalamkar, Shri V.D. Shah and Dr M. Swain coordinated their visit to the Centre.

- Prof. Vijay Paul Sharma, Centre for Management in Agriculture, Indian Institute of Management (IIM), Ahmedabad visited the Centre on September 26, 2012 and discussed the project related issues.

- Dr. Madhusudan Bhattarai (Principal Scientist-Economics), Shri Chopde (Sr. Scientist Office), and Shri Ramesh Chaudharay (Field Investigator), International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), Patancheru, Andhra Pradesh, India visited Centre on October 16, 2012 and discussed possibility of collaborative research.

- Shri Rashmikant Pandya, Director, Directorate of Economics and Statistics, Government of Gujarat, Gandhinagar visited the Centre on December 13, 2012 and discussed about AERC work and method of data collection in CCS.

- Shri Anil Patel, Manager (SAS Division), National Dairy Development Board (NDDB), Anand visited the Centre on December 24, 2012.
Visit of Shri Rashmikant Pandya, Director, Directorate of Economics and Statistics, Govt. of Gujarat, Gandhinagar

Visit of Prof. Vijay Paul Sharma, CMA, Indian Institute of Management, Ahmedabad
Meetings of the Governing Body

The meetings of the Governing Body of the Centre met once in the year on January 28, 2013.
### Appointments, Retirement, Resignation, etc

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<thead>
<tr>
<th>Name</th>
<th>Post</th>
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<tbody>
<tr>
<td><strong>Joined</strong></td>
<td></td>
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<tr>
<td>Dr. S. S. Kalamkar</td>
<td>Director</td>
<td>05.07.2012</td>
</tr>
<tr>
<td>Shri T. B. Parihar</td>
<td>Research Associate</td>
<td>27.08.2012</td>
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<tr>
<td><strong>Resigned</strong></td>
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<td><strong>Retired</strong></td>
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<tr>
<td>Shri J. B. Kahar</td>
<td>H.P.O.</td>
<td>14.06.2012</td>
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### CCS

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<tr>
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<tr>
<td>Shri M R Rana</td>
<td>Ad-hoc Computer</td>
<td>07-07-2012</td>
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<tr>
<td>Shri P. J. Chauhan</td>
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<td>24.09.2012</td>
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<td>Shri P.P. Desai</td>
<td>Fieldman</td>
<td>18.02.2013</td>
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<td>Shri Ravi S. Patel</td>
<td>Fieldman</td>
<td>29.09.2012</td>
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<tr>
<td>Shri Amit M. Patel</td>
<td>Fieldman</td>
<td>03.10.2012</td>
</tr>
<tr>
<td><strong>Retired</strong></td>
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<tr>
<td>Shri A. M. Patel</td>
<td>Agriculture Supervisor</td>
<td>14.06.2012</td>
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<tr>
<td>Shri C. M. Patel</td>
<td>Field Supervisor</td>
<td>14.06.2012</td>
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<tr>
<td>Shri P. M. Patel</td>
<td>Agriculture Assistant</td>
<td>14.06.2012</td>
</tr>
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</table>
Infrastructure

The Centre is located at the H.M. Patel Institute of Rural Development, Opp. Nanadalaya Temple, Post Box No. 24, Sardar Patel University, Vallabh Vidyanagar 388120. In the same building, Department of Economics is housed on ground and first floor while AERC and CCS is working form third floor of the same building.

AERC:

During the year 2012-13, the following equipments/hardware/software/ office materials was purchased from the grant-in-aid received: 1 All mark make key board; 1 All mark make monthly planner; 1 Gang Seater; 1 Vacuum Cleaner; 7 visitor chairs; 1 Air Cooler; 1 Water Cooler; 2 Table frame prepared; 2 Water Cooler Stand; 1 Wireless Phone; 2 Cupboard; 1 Block Board, etc.

CCS:

During the year 2012-2013, the following equipments/hardware/software/ office materials was purchased from the grant-in-aid received: 1 Refrigerator; 1 Mobile; 1 Corner Table; 1 Table; 1 Gang seater; 1 Deep Cleaner; 1 LED TV; 1 Magazine Stand; 30 Visitor Chairs; 7 window fitting Aluminum frame; 1 Water Cooler; 1 High Bank visitor chair; 1 Low back visitor chair; 60 Table; 120 Folding Chair; 60 Office chair; 4 Air Cooler; 1 R.O. System 25 ltr; etc.
### AERC Staff:

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<thead>
<tr>
<th>Sr. No.</th>
<th>Name</th>
<th>Qualification</th>
<th>Designation</th>
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<tr>
<td>1</td>
<td>Dr. S. S. Kalamkar</td>
<td>M. Sc. Ag. (Agril. Eco.), Ph.D. (Agril. Eco.)</td>
<td>Director</td>
</tr>
<tr>
<td>2</td>
<td>Dr. (Mrs.) R. A. Dutta</td>
<td>M.A. (Econ.), MS-Agri. Eco. (Wisconsin), Ph. D. (Eco.)</td>
<td>Deputy Director</td>
</tr>
<tr>
<td>3</td>
<td>Shri V. D. Shah</td>
<td>M.Sc. (Statistics)</td>
<td>Research Officer</td>
</tr>
<tr>
<td>3</td>
<td>Dr. M. N. Swain</td>
<td>M.A.(Eco.), M. Phil. (Eco.), Ph.D. (Eco.), NET (UGC)</td>
<td>Research Officer</td>
</tr>
<tr>
<td>4</td>
<td>Shri M. R. Ojha</td>
<td>M.A.(Eco.), NET (UGC)</td>
<td>Research Associate</td>
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<tr>
<td>5</td>
<td>Shri M. C. Makwana</td>
<td>M.A. (Eco.), B. Ed, P.G.D.C.A.</td>
<td>Research Associate</td>
</tr>
<tr>
<td>6</td>
<td>Ms. K. M. Kapadia</td>
<td>M.A. (Eco.), M. Phil. (Eco.)</td>
<td>Research Associate</td>
</tr>
<tr>
<td>7</td>
<td>Shri T. B. Parihar</td>
<td>B. Sc. (Agri.) M. Sc. (Agri.)</td>
<td>Research Associate</td>
</tr>
<tr>
<td>9</td>
<td>Shri D. N. Thakkar</td>
<td>M.Com, LL.B (Spl) PGDBM, PGDCA</td>
<td>Office Superintendent</td>
</tr>
<tr>
<td>11</td>
<td>Shri P. J. Patel</td>
<td>M.Com, P.G.D.B.A., P.G.D.M.M.</td>
<td>Account Assistant</td>
</tr>
<tr>
<td>13</td>
<td>Shri H. P. Parmar</td>
<td>B. Com., M.A. (Eco.), M.Com. (Bus. Eco.), NET (UGC)</td>
<td>Research Fellow*</td>
</tr>
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<td>15</td>
<td>Shri N. G. Chauhan</td>
<td>B.A. (Eco.), M.A. (Eco.)</td>
<td>Research Fellow*</td>
</tr>
</tbody>
</table>

Notes: * Temporary positions.
# Cost of Cultivation Scheme

## Staffing Pattern as on March 31, 2013

### Office Staff:

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Name</th>
<th>Qualification</th>
<th>Designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>*</td>
<td>Dr. S.S. Kalamkar</td>
<td>M. Sc. Ag. (Agril. Econ.), Ph.D. (Agril. Econ.)</td>
<td>Hon. Director</td>
</tr>
<tr>
<td>1</td>
<td>Dr. S. R. Bhaiya</td>
<td>M.A. (Eco.), M. Phil. (Eco); Ph.D. (Eco.)</td>
<td>Field Officer</td>
</tr>
<tr>
<td>2</td>
<td>Shri G. S. Machhi</td>
<td>M.A. (Eco.), M. Phil. (Eco)</td>
<td>Assistant Statistician</td>
</tr>
<tr>
<td>3</td>
<td>Shri R. I. Patel</td>
<td>M.A. (Eco.)</td>
<td>Agriculture Supervisor</td>
</tr>
<tr>
<td>4</td>
<td>Shri B. P. Pandya</td>
<td>M.Sc. (Agri.)</td>
<td>Field Supervisor</td>
</tr>
<tr>
<td>5</td>
<td>Shri H. U. Padhiyar</td>
<td>M.A. (Eco.), M. Phil. (Eco)</td>
<td>Field Supervisor</td>
</tr>
<tr>
<td>6</td>
<td>Shri H. P. Makwana</td>
<td>M.A. (Eco.), M. Phil. (Eco)</td>
<td>Field Supervisor</td>
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<td>7</td>
<td>Shri B. A. Pathak</td>
<td>B.Com.</td>
<td>Jr. Ck/Typist</td>
</tr>
<tr>
<td>8</td>
<td>Shri A. M. Patel</td>
<td>B.Com.</td>
<td>Jr. Ck/Typist</td>
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<tr>
<td>9</td>
<td>Shri B. M. Solanki</td>
<td>HSC(Commerce), BCA, MS-Office, Internet, Tally ERP 9</td>
<td>Ad-hoc Clerk *</td>
</tr>
<tr>
<td>10</td>
<td>Shri J. N. Singh</td>
<td>M.Com, PGDCA, B.Com.</td>
<td>Ad hoc Computer*</td>
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<tr>
<td>11</td>
<td>Shri F. G. Vahora</td>
<td>BCA, PGDCA, B.A. (Eco)</td>
<td>Ad hoc Computer*</td>
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<tr>
<td>12</td>
<td>Shri R. C. Mistry</td>
<td>BSC(Che.), DCA, MCSD, MCP, APC, CCC</td>
<td>Ad hoc Computer*</td>
</tr>
<tr>
<td>13</td>
<td>Shri M. S. Patel</td>
<td>BSC(Comp), PGDCA, MCA</td>
<td>Ad hoc Computer*</td>
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<tr>
<td>14</td>
<td>Miss B. S. Padhiyar</td>
<td>BA, PGDCA</td>
<td>Ad hoc Computer*</td>
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<tr>
<td>15</td>
<td>Shri Mihir Rana</td>
<td>BCA, PGDCA, PGDMM, MCA</td>
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<td>16</td>
<td>Shri V.C. Harijan</td>
<td>SSC</td>
<td>Peon*</td>
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### Cost of Cultivation Scheme Staffs on March 31, 2013

**Field Staff:**

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<tr>
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<td>Shri B. I. Prajapati</td>
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<td>Shri B. B. Chavda</td>
<td>Agriculture Assistant</td>
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<tr>
<td>19</td>
<td>Shri P. T. Dave</td>
<td>Agriculture Assistant</td>
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<tr>
<td>20</td>
<td>Shri J. S. Raj</td>
<td>Agriculture Assistant</td>
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<tr>
<td>21</td>
<td>Shri C G Baria</td>
<td>Agriculture Assistant</td>
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<td>22</td>
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<tr>
<td>23</td>
<td>Shri. M. O. Trivedi</td>
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<td>24</td>
<td>Shri. P. M. Patel</td>
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<td>25</td>
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<td>26</td>
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<td>28</td>
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<td>29</td>
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<td>Shri T. P. Parekh</td>
<td>Field Man</td>
</tr>
<tr>
<td>70</td>
<td>Shri A. R. Solanki</td>
<td>Field Man</td>
</tr>
<tr>
<td>71</td>
<td>Shri N. P. Patel</td>
<td>Field Man</td>
</tr>
<tr>
<td>72</td>
<td>Shri B. R. Patel</td>
<td>Field Man</td>
</tr>
<tr>
<td>73</td>
<td>Shri J. J. Patel</td>
<td>Field Man</td>
</tr>
<tr>
<td>74</td>
<td>Shri R. S. Patel</td>
<td>Field Man</td>
</tr>
<tr>
<td>75</td>
<td>Shri A. M. Patel</td>
<td>Field Man</td>
</tr>
</tbody>
</table>
Audited Statement

The grant-in-aid received from the Directorate of Economics and Statistics, Ministry of Agriculture, Government of India and other agencies and Expenditure Incurred during 2012-13 is presented below. The audited utilization certificate (AUC) is submitted to the granter in the second week of April, 2013.

<table>
<thead>
<tr>
<th>AERC</th>
<th>Amount in Rs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>i)</td>
<td>Unspent Balance as on April 1, 2012</td>
</tr>
<tr>
<td>ii)</td>
<td>Grant-in-aid received during 2012-13</td>
</tr>
<tr>
<td>iii)</td>
<td>Other Income</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Total Expenditure during 2012-13</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Unspent Balance as on March 31, 2013</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
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<th>CCS</th>
<th>Amount in Rs.</th>
</tr>
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</tbody>
</table>
Agro-Economic Research Centre
(Sponsored by Ministry of Agriculture, Govt. of India, New Delhi)
Sardar Patel University, Vallabhbh Vidyanagar 388120, Dist. Anand, Gujarat, India
Group Photo of AERC and CCS Staff taken on January 28, 2013

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Standing 2nd Row (L-R) :- Shri M. S. Patel, Shri F. G. Vohra, Shri Manish Ojha, Shri H. P. Parmar, Shri D. K. Patel, Shri M. R. Rana, Shri H. P. Makwana.