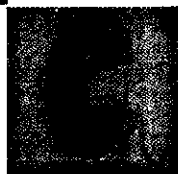


# REPORT ON



## TAMIL NADU

### 2011 - 12

*Fasli 1421*



DEPARTMENT OF ECONOMICS AND STATISTICS

CHENNAI



*REPORT ON*  
*IMPROVEMENT OF CROP STATISTICS*  
*SCHEME*

TAMILNADU

*2011 - 12*

FASLI - 1421

DEPARTMENT OF ECONOMICS AND STATISTICS

CHENNAI- 600 006.

## ***PREFACE***

The Scheme for “ Improvement of Crop Statistics “ was launched in 1973 -74 as a joint effort of the NSSO, Government of India and Department of Economics and Statistics of the State Government, with an objective to locate the deficiencies in the system of Crop area and yield statistics by exercising technical supervision over the primary field work and suggesting remedial measures for improving the system towards achieving overall improvement of agricultural statistics.

The objectives, design, plan of work, estimation procedure etc are presented in this report together with analytical study of the results obtained as a result of the execution of the scheme during 2011-12.

The efforts put forth by the field officials of the National Sample Survey Organisation and the Department of Economics and Statistics in data collection, tabulation, analysis and preparation of the report deserve appreciation.

Suggestions for further improvement of this report are welcome.

Place :Chennai-6  
Date : 08.05.2014

Sd/- Niranjan Mardi  
Principal Secretary/Commissioner

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# **1.INTRODUCTION**

## **1.1 GENESIS OF THE SURVEY**

The official statistics on area under various crops are recorded at village level in Tamil Nadu by the Village Administrative Officers (V.A.O). But quite often the area statistics thus compiled are either found to be incomplete or inaccurate, the reason attributed thereto being, that the Village Administrative Officers are engaged in the preparation of village accounts mainly for the purpose of the collection of land revenue and other taxes at the village level. The need was, therefore, felt for an element of supervision that could be undertaken on a scientific basis over the primary work of area enumeration done by the Village Administrative Officers. However, as the supervision of the collection of accurate area statistics over a vast area is a voluminous work requiring a net work of personnel, other ways were to be attempted to correct the deficiency. With this objective, a working group on agricultural statistics, set up by the Governing Council of National Sample Survey Organisation, made certain recommendations in March 1973 about the need for strengthening the supervision of field work relating to both crop-area and yield statistics. Based on those recommendations, a scheme known as 'Improvement of Crop Statistics' was first implemented in Tamil Nadu, as per G.O.Ms.No.310 (Statistics) Forests & Fisheries Department, dated: 21st March 1975 and continued thereafter. At present, the Department of Economics and Statistics is implementing this scheme in Tamil Nadu, in collaboration with the National Sample Survey Organisation, Government of India.

## **1.2 FINANCIAL ASSISTANCE AND IMPLEMENTATION**

The scheme was initially implemented as a centrally sponsored scheme fully funded by the Ministry of Agriculture and Irrigation, Government of India. From the year 1975-76, the expenditure was equally shared by the central and state governments on a 50:50 basis. Again from the year 2007-08, Government of India has fully funded for this scheme. From the year 2003-04, centrally sponsored schemes, such as; i) TRS, ii) ICS, iii) CES on F&V have been merged and brought under one umbrella namely "Improvement of Agricultural Statistics" as its components. Implementation and monitoring of the scheme are the same. The technical guidance both for organising the sample check on area enumeration and supervision of crop cutting experiments is provided by the National Sample Survey Organisation (FOD), Government of India, Faridabad. At state level, the execution and administration of the scheme are under the control of Principal Secretary/Commissioner, Department of Economics and Statistics, Tamil Nadu.

Mean square between villages for the state

$$E = \frac{\sum_{i=1}^d \left[ \sum_{j=1}^{m_i} \frac{\left( \sum_{k=1}^{n_{ij}} y_{ijk} \right)^2}{n_{ij}} - \frac{\left( \sum_{j=1}^{m_i} \sum_{k=1}^{n_{ij}} y_{ijk} \right)^2}{n_i} \right]}{\sum_{i=1}^d (m_i - 1)}$$

F = mean square of yield within villages, which is given by

$$F = \frac{\sum_{i=1}^d \left[ \sum_{j=1}^{m_i} \sum_{k=1}^{n_{ij}} Y_{ijk}^2 - \sum_{j=1}^{m_i} \frac{\left( \sum_{k=1}^{n_{ij}} Y_{ijk} \right)^2}{n_{ij}} \right]}{\sum_{i=1}^d (n_i - m_i)}$$

This variance is multiplied by  $CF^2$  to obtain the variance of the estimates in terms of kg/hect.

$$\sqrt{V(\bar{Y})}$$

The standard Error (SE) is given by,  $SE = \sqrt{V(\bar{Y})}$  and the percentage standard error of the yield rate is given by  $\% SE (\bar{Y}) = \frac{\sqrt{V(\bar{Y})}}{\bar{Y}} \times 100$

Crops for which pre-stratification in planning of experiments under ICS has been adopted according to the corresponding pre-stratification under CES in the state, the estimates of yield rate and its percentage standard error is prepared separately for each category of a crop. The estimates for different categories at state level is then combined as under:

Let  $\bar{Y}_1$  be estimated average yield rate for 1<sup>st</sup> category.

$\bar{Y}_2$  be estimated average yield rate for 2<sup>nd</sup> category.

$A_1$  to the area under the crop in the state for 1<sup>st</sup> category.

$A_2$  to the area under the crop in the state for 2<sup>nd</sup> category.

Then the combined estimate of yield rate is given by

$$\bar{Y}_{(1+2)} = \frac{\bar{Y}_1 A_1 + \bar{Y}_2 A_2}{A_1 + A_2}$$

∴ The estimate of variance is given by

$$V \left[ (\bar{Y})_{1+2} \right] = P_1^2 Var (\bar{Y}_1) + P_2^2 Var (\bar{Y}_2)$$

Where  $P_1 = \frac{A_1}{A_1 + A_2}$  &  $P_2 = \frac{A_2}{A_1 + A_2}$

$V (\bar{Y}_1)$  = the estimate of variance of I<sup>st</sup> category.

$V (\bar{Y}_2)$  = the estimate of variance of II<sup>nd</sup> category.

The estimate of yield rate and its percentage standard error is prepared separately for central and state samples and these estimates are then pooled together as:

Let  $\bar{Y}_c$  &  $\bar{Y}_s$  be the estimated average yield rate for central and state sample respectively.

And  $V_c$  &  $V_s$  be the estimate of variance for central and state sample respectively.

Calculate

$$e_c = \frac{1}{V_c} \quad \text{and} \quad e_s = \frac{1}{V_s}$$

The pooled estimate of yield rate is given by

$$\bar{Y}_p = \frac{e_c \bar{Y}_c + e_s \bar{Y}_s}{e_c + e_s}$$

And an estimate of its variance is given by

$$V (\bar{Y}_p) = \frac{1}{e_c + e_s}$$

## **4. RECAPITULATIONS OF THE SURVEY**

### **A. AREA STATISTICS**

**4.1** Table - 1 shows the details of receipt of schedules as A.S.1.0, 1.1 and 2.0 during the years 2010-11 and 2011-12.

Regarding Sample check on area enumeration response in respect of the receipt of schedules were 100 % during the year 2011-12. It is observed that 99% of A.S.1.0 schedules were received within the cut off date during this year. With regard to schedule A.S.1.1, 96% of schedules for state sample were received within cut off date .

As far as A.S-2.0 concerned 97% of schedules were received within the cut off date and 3% after the cut off date.

**4.2** The phasewise total no. of schedules received with 'A' entries (entries made by the supervisor) and 'B' entries (entries made by the primary worker i.e., VAO in the village records) during the year 2010-11 and 2011-12 were analysed in Table - 2.

**4.3** Table - 3 provides the detail regarding up-dation of village maps, their availability and usability. It may be seen that maps are usable in 502 villages out of 520 villages planned for pooled sample. It also reveals that in 478 villages, ( 92% ) the available maps were found to be more than 20 years old.

**4.4** The villages selected for the sample check on area enumeration during the year 2011-12 has been classified according to geographical area and shown in Table – 4. It is observed from the table of pooled samples that out of 520 villages analysed, only 9 villages (1.73% ) possessed the lowest geographical area of up to 50 hectares, while 13 villages ( 2.50% ) had the highest geographical area extending more than 3000 hectares each. It may be seen from the table that a maximum number of 128 villages (24.62%) fell within a group of which the geographical area ranged between 1001 and 3000 hectares.

**4.5** Details of the work load of the V.A.O's were measured in terms of villages in their respective jurisdiction, average workload of VAO's in terms of survey / sub-survey numbers and geographical area for the years 2011-12 and 2010-11 are shown in Table - 5. It is evident that the average workload of the Village Administrative Officers in terms of villages as well as survey numbers / geographical area are reasonable.



**4.6** The particulars of completion of girdawari by Village Administrative Officers for the years 2011-12 and 2010-11 are furnished in Table - 6. On comparison of the extent of timely completion of area enumeration work during 2011-12 with that of previous year, it is observed that the timely completion of area enumeration work was found to be of the order of 100% for Phase-I, 100% for Phase-II and 100% for Phase-III. The corresponding figures for 2010-11 were 87%, 94% and 100% for Phase-I, Phase-II and Phase-III respectively showing a slight increase in the percentage of timely completion of area enumeration work.

**4.7** Information on the workload of Village Administrative Officers were measured in terms of number of villages allotted per V.A.O is given in Table - 7. It is observed that 96% of the V.A.O's had 1-5 villages in their jurisdiction. But only 4 % of Village Administrative Officers covering 6-10 villages range.

#### **4.8 SUBMISSION OF TRS STATEMENTS**

The details of submission of TRS statements during 2011-12 and 2010-11 are presented in Table - 8. It reveals that TRS statements were submitted in time which accounts for 100% of villages in Phase-I, II and III respectively during the year 2011-12. The corresponding figures of submission of TRS statements in time for 2010-11 were 99%, 99%, 100% for Phase-I, Phase-II and Phase-III respectively. The percentage submission of TRS statements in time during the reference year shows an upward trend in all the three phases.

#### **4.9 RECORDING OF AREA UNDER DIFFERENT CROPS IN ADANGAL**

During the course of sample check on area enumeration under various crops carried out in the selected survey / sub-division numbers in the sample villages and the corresponding entries made in the adangal maintained by the village administrative officers, several errors have been noticed. The number of serial / survey numbers under different type of errors for the years 2011-12 and 2010-11 are furnished in Table - 9. The sample checks reveal that during Phase-I, II and III of 2011-12, only in 73%, 85% and 65% respective survey numbers crop and crop areas reported by the two agencies tallied as against 64%, 74% and 61% in the corresponding phases of the last year.

**4.10** Sample check programme envisages information reported by supervisors and primary workers by irrigation in Table - 10 and details of crop area and seed variety are furnished in Table - 11.

#### **4.11 ESTIMATION OF AREA**

The area reported by primary worker in the adangal form is the basis for TRS as well as final estimates of crop areas. The Improvement of Crop Statistics analysis enables to judge the deviation in estimates of area under crops based on area reported by supervisor and the primary workers in the sample survey numbers. The crop wise estimates of area under 8 principal crops are furnished in Table - 12.

#### **4.12 PAGE TOTALING OF KHASRA REGISTER (A.S-1.1)**

The estimated area based on the village papers as checked by the supervisors and as recorded by the Village Administrative Officers in adangal for various crops for the year as a whole are furnished in Table - 13. It may be seen that the overall impact of aggregation errors was less in the case of Ragi, Paddy, Cotton crops and more in Bajra, Jowar and Sugarcane crops. This indicates that normally, aggregation errors are not generally noticed by the village administrative officers in arriving at the page totals in adangal.

#### **4.13 YIELD CHECK AT HAVEST STAGE(A.S-2.0)**

Apart from the Sample check on area, the supervisor is present during the conduct of crop cutting experiments. He observes that the extent of the primary workers adhere to the prescribed procedures and mistakes if any, are corrected on the spot. For this purpose, a sample of 780 crop cutting experiments covering 8 principal crops, viz. Paddy, Jowar, Bajra, Ragi, Cotton, Groundnut, Sugarcane and Gingelly were selected for intensive supervision separately by central and state staff for the year 2011-12.

The programme envisages locating an experimental plot for harvesting and weighing the produce of specified area in randomly chosen survey numbers and villages. The agricultural officers of the Agriculture Department are conducting the experiments. Sample check on crop cutting experiments are carried out in the sub-sample of General crop estimation survey villages by the Central and State staff with a view to assess the extent to which the methodology, techniques and procedures prescribed for the conduct of crop cutting experiments are adopted and practices in the field conditions. Conduct of crop cutting experiments on objective basis is a complex task and as such it is imperative that primary workers assigned with the task to receive adequate training. Such training to primary workers is organised by the Department of Economics and Statistics at the beginning of each agricultural year.

**4.14** In the field programme of sample check on crop cutting experiments, special emphasis has been given to ensure that technical personnel are invariably present at the harvest stage to observe the experimental procedures and provide necessary technical and administrative guidance wherever necessary. The extent of participation at harvest stage is evident from the information presented in Table - 14. It may be seen that 93% of experiments were checked by the supervisors at harvest stage under the pooled sample.

**4.15** Estimates of yield rates of the principal crops based on sample check on crop cutting experiments along with percentage standard error are presented in Table - 15.

**4.16** Generally, villages are substituted for the reason, viz., crop not sown, crop harvested without intimation etc., The number of experiments for which no substitution was made for sampling units at village and field level are presented in Table - 16 for the year 2011-12 and 2010-11.

**4.17** Particulars gathered during the visit of the technical personnel are used to assess the extent to which the procedural guidelines prescribed for the conduct of crop cutting experiments is observed by the state primary workers. The type of deviation from prescribed procedures for conducting crop-cutting experiments of state primary workers is summarized in Table - 17.

About 81% of crop cutting experiments were conducted in accordance with the prescribed procedures.

#### **4.18 SUPPLY & USE OF EQUIPMENT'S**

Position of supply and use of equipments such as tapes, balances, set of weights and pegs are furnished in Table - 18. This table shows that 98% of supplied tapes, 97% of supplied balance, 97% of supplied weights and 91% of supplied pegs were used while conducting the crop cutting experiments during 2011-12. This brings an element of subjectivity and standardisation in the process of arriving at average yield rate.

#### **4.19 DELEGATION OF WORK BY PRIMARY WORKERS**

Number of experiments conducted by primary worker and delegated workers are furnished in Table - 19 in 2011-12. Out of 1549 experiments, 1489 experiments were conducted by trained workers i.e., 96% of total experiments. Number of experiments delegated to junior level workers constitute 1% only.

## **5.UTILITY OF THE SCHEME**

The sample checks reveal that the field work done at primary level are intended to effect improvement in the quality of primary data in respect of both enumeration of crop area and crop estimation survey. This factor helps both Central and State Governments in planning agricultural policies and programmes with accuracy.

TABLE 1

RESULT OF SCHEDULES

| Year    | Schedules          | Season     | Sample    | No. of villages / experiments planned | No. of villages / experiments for which schedules received |     |                    |    |
|---------|--------------------|------------|-----------|---------------------------------------|------------------------------------------------------------|-----|--------------------|----|
|         |                    |            |           |                                       | by cut off date                                            | %   | after cut off date | %  |
| 2011-12 | A.S.1.0 (Villages) | Phase - I  | Central   | 260                                   | 260                                                        | 100 | 0                  | 0  |
|         |                    |            | State     | 260                                   | 257                                                        | 99  | 3                  | 1  |
|         |                    |            | Pooled    | 520                                   | 517                                                        | 99  | 3                  | 1  |
|         |                    | Phase -II  | Central   | 260                                   | 258                                                        | 99  | 2                  | 1  |
|         |                    |            | State     | 260                                   | 256                                                        | 98  | 4                  | 2  |
|         |                    |            | Pooled    | 520                                   | 514                                                        | 99  | 6                  | 1  |
|         |                    | Phase -III | Central   | 260                                   | 257                                                        | 99  | 3                  | 1  |
|         |                    |            | State     | 260                                   | 252                                                        | 97  | 8                  | 3  |
|         |                    |            | Pooled    | 520                                   | 509                                                        | 98  | 11                 | 2  |
|         | A.S.1.1 (Villages) | Whole year | Central * | --                                    |                                                            |     |                    |    |
|         |                    |            | State     | 260                                   | 250                                                        | 96  | 10                 | 4  |
|         |                    |            | Pooled    | --                                    |                                                            |     |                    |    |
| 2010-11 | A.S.1.0 (Villages) | Phase - I  | Central   | 260                                   | 217                                                        | 83  | 43                 | 17 |
|         |                    |            | State     | 260                                   | 240                                                        | 92  | 20                 | 8  |
|         |                    |            | Pooled    | 520                                   | 457                                                        | 88  | 63                 | 12 |
|         |                    | Phase -II  | Central   | 260                                   | 190                                                        | 73  | 70                 | 27 |
|         |                    |            | State     | 260                                   | 209                                                        | 80  | 51                 | 20 |
|         |                    |            | Pooled    | 520                                   | 399                                                        | 77  | 121                | 23 |
|         |                    | Phase -III | Central   | 260                                   | 112                                                        | 43  | 148                | 57 |
|         |                    |            | State     | 260                                   | 214                                                        | 82  | 46                 | 18 |
|         |                    |            | Pooled    | 520                                   | 326                                                        | 63  | 194                | 37 |
|         | A.S.1.1 (Villages) | Whole year | Central * | --                                    | --                                                         | --  | --                 | -- |
|         |                    |            | State     | 260                                   | 159                                                        | 61  | 101                | 39 |
|         |                    |            | Pooled    | --                                    | --                                                         | --  | --                 | -- |
| 2011-12 | A.S.2.0 (Expt)     | Whole Year | Central   | 780                                   | 764                                                        | 98  | 16                 | 2  |
|         |                    |            | State     | 780                                   | 754                                                        | 97  | 26                 | 3  |
|         |                    |            | Pooled    | 1560                                  | 1518                                                       | 97  | 42                 | 3  |
| 2010-11 | A.S.2.0 (Expt)     | Whole Year | Central   | 780                                   | 771                                                        | 99  | 9                  | 1  |
|         |                    |            | State     | 780                                   | 766                                                        | 98  | 14                 | 2  |
|         |                    |            | Pooled    | 1560                                  | 1537                                                       | 99  | 42                 | 3  |

**Note :**

\* - The field work of A.S-1.1 Schedules has been suspended for central sample till further order as per the NSSO, Faridabad ( Lr.No:A-0013 / Workload / ICS / 2008-AS, dated:08.12.2008 )

**TABLE 2**  
**RESPONSE IN SAMPLE CHECK ON ENUMERATION OF AREA**

| Season     | Sample  | Number of villages planned |         | Total number of schedules received |         | Number of schedules analysed |     |                               |   |                       |   | Total |     |
|------------|---------|----------------------------|---------|------------------------------------|---------|------------------------------|-----|-------------------------------|---|-----------------------|---|-------|-----|
|            |         | 2011-12                    | 2010-11 | 2011-12                            | 2010-11 | With 'A&B' entries together  |     | With 'A&B' entries separately |   | With 'A' entries only |   |       |     |
| Phase -I   | Central | 260                        | 260     | 260                                | 260     | 260                          | 260 | 0                             | 0 | 0                     | 0 | 260   | 260 |
|            | State   | 260                        | 260     | 260                                | 260     | 260                          | 260 | 0                             | 0 | 0                     | 0 | 260   | 260 |
|            | Pooled  | 520                        | 520     | 520                                | 520     | 520                          | 520 | 0                             | 0 | 0                     | 0 | 520   | 520 |
| Phase -II  | Central | 260                        | 260     | 260                                | 260     | 260                          | 260 | 0                             | 0 | 0                     | 0 | 260   | 260 |
|            | State   | 260                        | 260     | 260                                | 260     | 260                          | 260 | 0                             | 0 | 0                     | 0 | 260   | 260 |
|            | Pooled  | 520                        | 520     | 520                                | 520     | 520                          | 520 | 0                             | 0 | 0                     | 0 | 520   | 520 |
| Phase -III | Central | 260                        | 260     | 260                                | 260     | 260                          | 260 | 0                             | 0 | 0                     | 0 | 260   | 260 |
|            | State   | 260                        | 260     | 260                                | 260     | 260                          | 260 | 0                             | 0 | 0                     | 0 | 260   | 260 |
|            | Pooled  | 520                        | 520     | 520                                | 520     | 520                          | 520 | 0                             | 0 | 0                     | 0 | 520   | 520 |

**TABLE 3**  
**INFORMATION REGARDING UPDATION OF VILLAGE MAPS AND THEIR USABILITY**

| Number of years since updated         | No. of villages where information available |       |        |                             |
|---------------------------------------|---------------------------------------------|-------|--------|-----------------------------|
|                                       | 2011-12                                     |       |        |                             |
|                                       | Central                                     | State | Pooled | Percentage to pooled sample |
| (1) Total No. of villages analysed    | 260                                         | 260   | 520    | 100                         |
| (a) 1-5                               | 2                                           | 3     | 5      | 0.9                         |
| (b) 6-10                              | 0                                           | 5     | 5      | 0.9                         |
| (c) 11-20                             | 8                                           | 9     | 17     | 3.3                         |
| (d) more than 20 years                | 243                                         | 235   | 478    | 91.9                        |
| (e) information not available         | 7                                           | 8     | 15     | 3.0                         |
| (2) Availability of maps with patwari |                                             |       |        |                             |
| (a) maps available                    | 253                                         | 252   | 505    | 97.1                        |
| (i) usable maps                       | 252                                         | 250   | 502    | 96.5                        |
| (ii) unusable maps                    | 1                                           | 2     | 3      | 0.6                         |
| (b) maps not available                | 7                                           | 8     | 15     | 2.9                         |

TABLE 4

**BI-VARIATE FREQUENCY DISTRIBUTION OF SAMPLE VILLAGES COVERED BY THE SCHEME DURING THE YEAR 2011-12  
ACCORDING TO TOTAL NUMBER OF SURVEY /SUB-DIVISION NUMBERS AND GEOGRAPHICAL AREA  
(Pooled Sample)**

| Class interval of<br>Serial / Survey<br>Numbers (code) | Class intervals of Geographical Area(ha) |         |         |         |         |         |          |           |            |      | Not<br>Reported | Total  | Percentage<br>to selected<br>Villages |
|--------------------------------------------------------|------------------------------------------|---------|---------|---------|---------|---------|----------|-----------|------------|------|-----------------|--------|---------------------------------------|
|                                                        | up to 50                                 | 51 -100 | 101-200 | 201-400 | 401-600 | 601-800 | 801-1000 | 1001-3000 | above 3000 |      |                 |        |                                       |
| 1 - 200                                                | 8                                        | 6       | 1       | 1       | 0       | 0       | 0        | 0         | 1          | 0    | 17              | 3.27   |                                       |
| 201 - 400                                              | 0                                        | 2       | 8       | 5       | 0       | 0       | 0        | 0         | 0          | 0    | 15              | 2.88   |                                       |
| 401-600                                                | 1                                        | 4       | 17      | 7       | 1       | 0       | 0        | 0         | 0          | 0    | 30              | 5.77   |                                       |
| 601 - 800                                              | 0                                        | 2       | 9       | 13      | 3       | 1       | 0        | 1         | 0          | 0    | 29              | 5.58   |                                       |
| 801 - 1000                                             | 0                                        | 1       | 11      | 19      | 5       | 0       | 0        | 0         | 0          | 0    | 36              | 6.92   |                                       |
| 1001-5000                                              | 0                                        | 1       | 15      | 72      | 76      | 48      | 36       | 85        | 6          | 0    | 339             | 65.19  |                                       |
| More than 5000                                         | 0                                        | 0       | 0       | 0       | 0       | 2       | 4        | 42        | 6          | 0    | 54              | 10.38  |                                       |
| Information not<br>reported                            | 0                                        | 0       | 0       | 0       | 0       | 0       | 0        | 0         | 0          | 0    | 0               | 0.00   |                                       |
| Total                                                  | 9                                        | 16      | 61      | 117     | 85      | 51      | 40       | 128       | 13         | 0    | 520             | 100.00 |                                       |
| Percentage                                             | 1.73                                     | 3.08    | 11.70   | 22.50   | 16.35   | 9.81    | 7.69     | 24.62     | 2.50       | 0.00 | 100.00          | 100.00 |                                       |



**TABLE 5**  
**WORKLOAD OF VILLAGE ADMINISTRATIVE OFFICERS IN THE SELECTED VILLAGES**

| Sample  | Average number of villages allotted per patwari |         |         |         | Average workload per patwari in the selected villages in terms of |         |                             |         |
|---------|-------------------------------------------------|---------|---------|---------|-------------------------------------------------------------------|---------|-----------------------------|---------|
|         | Total                                           |         | Tts     |         | No. of survey / sub-survey numbers                                |         | Geographical area (in hec.) |         |
| Year    | 2011-12                                         | 2010-11 | 2011-12 | 2010-11 | 2011-12                                                           | 2010-11 | 2011-12                     | 2010-11 |
| Central | 2.4                                             | 2.1     | 1.1     | 1.1     | 2594                                                              | 3118    | 799                         | 857     |
| State   | 2.3                                             | 2.0     | 2.3     | 1.1     | 2398                                                              | 2765    | 786                         | 845     |
| Pooled  | 2.4                                             | 2.1     | 1.7     | 1.1     | 2496                                                              | 2942    | 792                         | 851     |

TABLE 6

## TIMELINESS IN COMPLETION OF TRS AREA ENUMERATION

|         |         | No. of villages where girdawari completed |      |                     |                 |       |          |      |                     |                 |       |           |      |                     |                 |       |   |     |
|---------|---------|-------------------------------------------|------|---------------------|-----------------|-------|----------|------|---------------------|-----------------|-------|-----------|------|---------------------|-----------------|-------|---|-----|
| Year    | Sample  | Phase-I                                   |      |                     |                 |       | Phase-II |      |                     |                 |       | Phase-III |      |                     |                 |       |   |     |
|         |         | No. of villages analysed                  |      |                     |                 |       |          |      |                     |                 |       |           |      |                     |                 |       |   |     |
|         |         | In time                                   | Late | Partially completed | Not yet started | Total | In time  | Late | Partially completed | Not yet started | Total | In time   | Late | Partially completed | Not yet started | Total |   |     |
| 2011-12 | Central | 260                                       | 260  | 0                   | 0               | 260   | 260      | 0    | 0                   | 260             | 260   | 0         | 0    | 260                 | 260             | 0     | 0 | 260 |
|         | State   | 260                                       | 260  | 0                   | 0               | 260   | 260      | 0    | 0                   | 260             | 260   | 0         | 0    | 260                 | 260             | 0     | 0 | 260 |
|         | Pooled  | 520                                       | 520  | 0                   | 0               | 520   | 520      | 0    | 0                   | 520             | 520   | 0         | 0    | 520                 | 520             | 0     | 0 | 520 |
| 2010-11 | Central | 260                                       | 252  | 0                   | 8               | 260   | 256      | 0    | 4                   | 260             | 260   | 0         | 0    | 260                 | 260             | 0     | 0 | 260 |
|         | State   | 260                                       | 199  | 11                  | 50              | 260   | 235      | 1    | 24                  | 260             | 260   | 0         | 0    | 260                 | 260             | 0     | 0 | 260 |
|         | Pooled  | 520                                       | 451  | 11                  | 58              | 520   | 491      | 1    | 28                  | 520             | 520   | 0         | 0    | 520                 | 520             | 0     | 0 | 520 |

**TABLE 7**  
**FREQUENCY DISTRIBUTION OF PATWARI OF THE SELECTED VILLAGES ACCORDING TO TOTAL  
NUMBER OF VILLAGES ALLOTTED FOR THE YEAR 2011-12**

| (Pooled Sample)                                     |           |            |                                                     |           |            |
|-----------------------------------------------------|-----------|------------|-----------------------------------------------------|-----------|------------|
| Total                                               |           |            | TRS                                                 |           |            |
| Total number of<br>villages allotted per<br>patwari | Frequency | Percentage | Total number of<br>villages allotted per<br>patwari | Frequency | Percentage |
| 1 to 5                                              | 498       | 95.77      | 1                                                   | 328       | 63.08      |
| 6 to10                                              | 22        | 4.23       | 2                                                   | 93        | 17.88      |
| 11 to15                                             | 0         | 0.00       | 3                                                   | 47        | 9.04       |
| Above 15                                            | 0         | 0.00       | Above 3                                             | 28        | 5.38       |
| Information not<br>available                        | 0         | 0.00       | Information not<br>available                        | 24        | 4.62       |
| Total                                               | 520       | 100.00     | Total                                               | 520       | 100.00     |

TABLE 8

## SUBMISSION OF TRS STATEMENT BY PATWARI

| Year     | Sample  | Total no. of villages analysed | Phase-I |     |      | Phase-II |     |      | Phase-III |     |      |
|----------|---------|--------------------------------|---------|-----|------|----------|-----|------|-----------|-----|------|
|          |         |                                | In time | %   | Late | In time  | %   | Late | In time   | %   | Late |
| 20011-12 | Central | 260                            | 260     | 100 | 0    | 260      | 100 | 0    | 260       | 100 | 0    |
|          | State   | 260                            | 260     | 100 | 0    | 260      | 100 | 0    | 260       | 100 | 0    |
|          | Pooled  | 520                            | 520     | 100 | 0    | 520      | 100 | 0    | 520       | 100 | 0    |
| 20010-11 | Central | 260                            | 258     | 99  | 2    | 255      | 98  | 5    | 260       | 100 | 0    |
|          | State   | 260                            | 255     | 98  | 5    | 260      | 100 | 0    | 260       | 100 | 0    |
|          | Pooled  | 520                            | 513     | 99  | 7    | 515      | 99  | 5    | 520       | 100 | 0    |

**TABLE 9**  
**DIFFERENT TYPES OF ERRORS OBSERVED IN RECORDING OF AREA**

| DIFFERENT TYPES OF ERRORS OBSERVED IN RESEARCH |           |         |                                        |                                               |              |    |                                           |     |     |                     |    |
|------------------------------------------------|-----------|---------|----------------------------------------|-----------------------------------------------|--------------|----|-------------------------------------------|-----|-----|---------------------|----|
| Year                                           | Season    | Sample  | No. of villages reporting for all crop | No. of serial / survey numbers reporting crop | No error e 0 | %  | No. of serial / survey numbers with error |     |     |                     |    |
|                                                |           |         |                                        |                                               |              |    | Error                                     |     |     |                     |    |
|                                                |           |         |                                        |                                               |              |    | e 1                                       | e 2 | e 3 | Total (e1 + e2+ e3) | %  |
| 2011-12                                        | Phase-I   | Central | 567                                    | 3599                                          | 2778         | 77 | 700                                       | 69  | 52  | 821                 | 23 |
|                                                |           | State   | 522                                    | 4047                                          | 2770         | 68 | 1072                                      | 151 | 54  | 1277                | 32 |
|                                                |           | Pooled  | 1089                                   | 7646                                          | 5548         | 73 | 1772                                      | 220 | 106 | 2098                | 27 |
|                                                | Phase-II  | Central | 209                                    | 1055                                          | 810          | 77 | 207                                       | 37  | 1   | 245                 | 23 |
|                                                |           | State   | 230                                    | 997                                           | 938          | 94 | 45                                        | 9   | 5   | 59                  | 6  |
|                                                |           | Pooled  | 439                                    | 2052                                          | 1748         | 85 | 252                                       | 46  | 6   | 304                 | 15 |
|                                                | Phase-III | Central | 77                                     | 247                                           | 76           | 31 | 112                                       | 37  | 22  | 171                 | 69 |
|                                                |           | State   | 88                                     | 440                                           | 372          | 85 | 66                                        | 2   | 0   | 68                  | 15 |
|                                                |           | Pooled  | 165                                    | 687                                           | 448          | 65 | 178                                       | 39  | 22  | 239                 | 35 |

Cont....

TABLE 9 (Conold.)

## DIFFERENT TYPES OF ERRORS OBSERVED IN RECORDING OF AREA

| Year    | Season    | Sample  | No. of villages<br>reporting for all<br>crop | No. of serial /<br>survey numbers<br>reporting crop | No error<br>e 0 | %  | No. of serial / survey numbers with error |     |     |       |    | Total<br>(e1 + e2+ e3) | % |
|---------|-----------|---------|----------------------------------------------|-----------------------------------------------------|-----------------|----|-------------------------------------------|-----|-----|-------|----|------------------------|---|
|         |           |         |                                              |                                                     |                 |    | e 1                                       | e 2 | e 3 | Error |    |                        |   |
| 2010-11 | Phase-I   | Central | 491                                          | 3247                                                | 2057            | 63 | 713                                       | 120 | 357 | 1190  | 37 |                        |   |
|         |           | State   | 496                                          | 3475                                                | 2263            | 65 | 1007                                      | 90  | 115 | 1212  | 35 |                        |   |
|         |           | Pooled  | 987                                          | 6722                                                | 4320            | 0  | 1720                                      | 210 | 472 | 2402  | 36 |                        |   |
|         | Phase-II  | Central | 221                                          | 947                                                 | 631             | 67 | 222                                       | 56  | 38  | 316   | 33 |                        |   |
|         |           | State   | 256                                          | 1105                                                | 893             | 81 | 182                                       | 1   | 29  | 212   | 19 |                        |   |
|         |           | Pooled  | 477                                          | 2052                                                | 1524            | 74 | 404                                       | 57  | 67  | 528   | 26 |                        |   |
|         | Phase-III | Central | 83                                           | 342                                                 | 146             | 43 | 193                                       | 0   | 3   | 196   | 57 |                        |   |
|         |           | State   | 98                                           | 304                                                 | 248             | 82 | 54                                        | 0   | 2   | 56    | 18 |                        |   |
|         |           | Pooled  | 181                                          | 646                                                 | 394             | 61 | 247                                       | 0   | 5   | 252   | 39 |                        |   |

e 0 : where the supervisor's and patwari's entries for the crop are identical

e 1 : where the supervisor reported the crop but patwari did not report

e 2 : where the supervisor did not report the crop but the patwari report it

e 3 : where the area under the crop reported by the supervisor and patwari differed

**TABLE 10**

**CROPWISE COMPARISON OF ENTRIES BY SUPERVISOR AND PATWARI OF CROP AREAS AS PER IRRIGATION**

| Season    | Year    | Paddy      |             |       |           |             |       | Jowar      |             |       |           |             |       | Bajra      |             |       |           |             |       | Ragi       |             |       |           |             |       |    |
|-----------|---------|------------|-------------|-------|-----------|-------------|-------|------------|-------------|-------|-----------|-------------|-------|------------|-------------|-------|-----------|-------------|-------|------------|-------------|-------|-----------|-------------|-------|----|
|           |         | Supervisor |             |       | Patwari   |             |       | Supervisor |             |       | Patwari   |             |       | Supervisor |             |       | Patwari   |             |       | Supervisor |             |       | Patwari   |             |       |    |
|           |         | Irrigated  | Unirrigated | Total | Irrigated | Unirrigated | Total | Irrigated  | Unirrigated | Total | Irrigated | Unirrigated | Total | Irrigated  | Unirrigated | Total | Irrigated | Unirrigated | Total | Irrigated  | Unirrigated | Total | Irrigated | Unirrigated | Total |    |
| Phase-I   | 2011-12 | 392        | 17          | 409   | 364       | 11          | 375   | 21         | 83          | 104   | 14        | 74          | 88    | 0          | 21          | 21    | 0         | 21          | 21    | 2          | 11          | 13    | 2         | 0           | 0     | 2  |
|           | 2010-11 | 394        | 15          | 409   | 381       | 14          | 395   | 15         | 80          | 95    | 9         | 80          | 89    | 0          | 11          | 11    | 0         | 9           | 9     | 0          | 16          | 16    | 0         | 0           | 0     | 16 |
| Phase-II  | 2011-12 | 229        | 3           | 232   | 231       | 5           | 236   | 8          | 12          | 20    | 7         | 10          | 17    | 1          | 2           | 3     | 1         | 2           | 3     | 4          | 1           | 5     | 4         |             |       | 5  |
|           | 2010-11 | 205        | 0           | 205   | 191       | 0           | 191   | 5          | 12          | 17    | 3         | 12          | 15    | 0          | 4           | 4     | 0         | 4           | 4     | 1          | 0           | 1     | 1         | 0           | 0     | 1  |
| Phase-III | 2011-12 | 22         | 0           | 22    | 21        | 0           | 21    | 4          | 4           | 8     | 1         | 2           | 3     | 0          | 0           | 0     | 0         | 0           | 0     | 0          | 0           | 0     | 0         | 0           | 0     | 0  |
|           | 2010-11 | 39         | 0           | 39    | 32        | 0           | 32    | 2          | 1           | 3     | 0         | 2           | 2     | 2          | 0           | 2     | 2         | 0           | 2     | 4          | 0           | 4     | 4         | 0           | 0     | 4  |

**TABLE 10 (Concid)**  
**CROPWISE COMPARISON OF ENTRIES BY SUPERVISOR AND PATWARI OF CROP AREAS AS PER IRRIGATION**

| Season    | Year    | Cotton     |             |       |           |             |       | Sugarcane  |             |       |           |             |       | Groundnut  |             |       |           |             |       | Cashewnut  |             |       |           |             |       |
|-----------|---------|------------|-------------|-------|-----------|-------------|-------|------------|-------------|-------|-----------|-------------|-------|------------|-------------|-------|-----------|-------------|-------|------------|-------------|-------|-----------|-------------|-------|
|           |         | Supervisor |             |       | Patwari   |             |       | Supervisor |             |       | Patwari   |             |       | Supervisor |             |       | Patwari   |             |       | Supervisor |             |       | Patwari   |             |       |
|           |         | Irrigated  | Unirrigated | Total | Irrigated | Unirrigated | Total | Irrigated  | Unirrigated | Total | Irrigated | Unirrigated | Total | Irrigated  | Unirrigated | Total | Irrigated | Unirrigated | Total | Irrigated  | Unirrigated | Total | Irrigated | Unirrigated | Total |
| Phase-I   | 2011-12 | 8          | 24          | 32    | 7         | 25          | 32    | 93         | 0           | 93    | 94        | 0           | 94    | 8          | 57          | 65    | 11        | 55          | 66    | 0          | 17          | 17    | 0         | 10          | 18    |
|           | 2010-11 | 10         | 14          | 24    | 9         | 15          | 24    | 70         | 0           | 70    | 61        | 0           | 61    | 8          | 65          | 73    | 8         | 55          | 63    | 1          | 18          | 19    | 1         | 17          | 18    |
| Phase-II  | 2011-12 | 3          | 6           | 9     | 2         | 5           | 7     | 10         | 0           | 10    | 11        | 0           | 11    | 46         | 17          | 63    | 33        | 15          | 48    | 0          | 1           | 1     | 0         | 1           | 1     |
|           | 2010-11 | 1          | 1           | 2     | 1         | 1           | 2     | 12         | 0           | 12    | 11        | 0           | 11    | 20         | 6           | 26    | 12        | 5           | 17    | 0          | 0           | 0     | 0         | 0           | 0     |
| Phase-III | 2011-12 | 9          | 3           | 12    | 5         | 2           | 7     | 17         | 0           | 17    | 13        | 0           | 13    | 3          | 2           | 5     | 2         | 2           | 4     | 0          | 0           | 0     | 0         | 0           | 0     |
|           | 2010-11 | 6          | 1           | 7     | 2         | 1           | 3     | 8          | 1           | 9     | 7         | 2           | 9     | 1          | 0           | 1     | 1         | 0           | 1     | 0          | 0           | 0     | 0         | 0           | 0     |



**TABLE 11**  
**CROP WISE COMPARISON OF ENTRIES BY SUPERVISOR AND PATWARI OF CROP AREA AS PER SEED VARIETY**  
**(in ha.)**

| Season    | Year    | Paddy         |       |       |               |       |       | Jowar         |       |       |               |       |       |
|-----------|---------|---------------|-------|-------|---------------|-------|-------|---------------|-------|-------|---------------|-------|-------|
|           |         | Supervisor    |       |       | Patwari       |       |       | Supervisor    |       |       | Patwari       |       |       |
|           |         | High yielding | Local | Total | High Yielding | Local | Total | High Yielding | Local | Total | High Yielding | Local | Total |
| Phase-I   | 2011-12 | 395           | 14    | 409   | 295           | 80    | 375   | 59            | 45    | 104   | 47            | 41    | 88    |
|           | 2010-11 | 392           | 17    | 409   | 321           | 74    | 395   | 38            | 57    | 95    | 32            | 58    | 90    |
| Phase-II  | 2011-12 | 224           | 8     | 232   | 181           | 55    | 236   | 16            | 4     | 20    | 12            | 5     | 17    |
|           | 2010-11 | 195           | 10    | 205   | 143           | 48    | 191   | 15            | 2     | 17    | 13            | 2     | 15    |
| Phase-III | 2011-12 | 22            | 0     | 22    | 21            | 0     | 21    | 7             | 1     | 8     | 1             | 2     | 3     |
|           | 2010-11 | 39            | 0     | 39    | 29            | 3     | 32    | 2             | 1     | 3     | 2             | 0     | 2     |

Cont....

TABLE 11

CROP WISE COMPARISON OF ENTRIES BY SUPERVISOR AND PATWARI OF CROP AREA AS PER SEED VARIETY

| Season    | Year    | Bajra         |       |       |               |       |       | Ragi          |       |       |               |       |       | (in ha.) |
|-----------|---------|---------------|-------|-------|---------------|-------|-------|---------------|-------|-------|---------------|-------|-------|----------|
|           |         | Supervisor    |       |       | Patwari       |       |       | Supervisor    |       |       | Patwari       |       |       |          |
|           |         | High Yielding | Local | Total | High Yielding | Local | Total | High Yielding | Local | Total | High Yielding | Local | Total |          |
| Phase-I   | 2011-12 | 10            | 11    | 21    | 8             | 13    | 21    | 5             | 8     | 13    | 5             | 7     | 12    |          |
|           | 2010-11 | 5             | 6     | 11    | 2             | 7     | 9     | 9             | 8     | 17    | 9             | 8     | 17    |          |
| Phase-II  | 2011-12 | 3             | 0     | 3     | 3             | 0     | 3     | 4             | 1     | 5     | 3             | 2     | 5     |          |
|           | 2010-11 | 3             | 1     | 4     | 3             | 1     | 4     | 1             | 0     | 1     | 1             | 0     | 1     |          |
| Phase-III | 2011-12 | 0             | 0     | 0     | 0             | 0     | 0     | 0             | 0     | 0     | 0             | 0     | 0     |          |
|           | 2010-11 | 2             | 0     | 2     | 2             | 0     | 2     | 4             | 0     | 4     | 4             | 0     | 4     |          |
| Cont...   |         |               |       |       |               |       |       |               |       |       |               |       |       |          |

Cont...

TABLE 11

CROP WISE COMPARISON OF ENTRIES BY SUPERVISOR AND PATWARI OF CROP AREA AS PER SEED VARIETY  
(in ha.)

| Season    | Year    | Cotton        |       |       |               |       |       | Sugarcane     |       |       |               |       |       |
|-----------|---------|---------------|-------|-------|---------------|-------|-------|---------------|-------|-------|---------------|-------|-------|
|           |         | Supervisor    |       |       | Patwari       |       |       | Supervisor    |       |       | Patwari       |       |       |
|           |         | High Yielding | Local | Total | High Yielding | Local | Total | High Yielding | Local | Total | High Yielding | Local | Total |
| Phase-I   | 2011-12 | 23            | 9     | 32    | 20            | 12    | 32    | 86            | 7     | 93    | 84            | 10    | 94    |
|           | 2010-11 | 22            | 3     | 25    | 19            | 5     | 24    | 68            | 2     | 70    | 55            | 7     | 62    |
| Phase-II  | 2011-12 | 8             | 1     | 9     | 7             | 0     | 7     | 10            | 0     | 10    | 10            | 1     | 11    |
|           | 2010-11 | 2             | 0     | 2     | 2             | 0     | 2     | 12            | 0     | 12    | 11            | 0     | 11    |
| Phase-III | 2011-12 | 12            | 0     | 12    | 7             | 0     | 7     | 17            | 0     | 17    | 13            | 0     | 13    |
|           | 2010-11 | 7             | 0     | 7     | 2             | 1     | 3     | 9             | 0     | 9     | 3             | 6     | 9     |

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**TABLE 11** *(Contd)*

**CROP WISE COMPARISON OF ENTRIES BY SUPERVISOR AND PATWARI OF CROP AREA AS PER SEED VARIETY**

**(in ha.)**

| Season    | Year    | Groundnut     |       |       |               |       |       | Cashewnut     |       |       |               |       |       |
|-----------|---------|---------------|-------|-------|---------------|-------|-------|---------------|-------|-------|---------------|-------|-------|
|           |         | Supervisor    |       |       | Patwari       |       |       | Supervisor    |       |       | Patwari       |       |       |
|           |         | High Yielding | Local | Total | High Yielding | Local | Total | High Yielding | Local | Total | High Yielding | Local | Total |
| Phase-I   | 2011-12 | 50            | 15    | 65    | 43            | 23    | 66    | 8             | 9     | 17    | 8             | 10    | 18    |
|           | 2010-11 | 63            | 10    | 73    | 50            | 13    | 63    | 4             | 15    | 19    | 4             | 14    | 18    |
| Phase-II  | 2011-12 | 44            | 19    | 63    | 27            | 21    | 48    | 1             | 0     | 1     | 0             | 1     | 1     |
|           | 2010-11 | 19            | 7     | 26    | 8             | 9     | 17    | 0             | 0     | 0     | 0             | 0     | 0     |
| Phase-III | 2011-12 | 4             | 1     | 5     | 3             | 1     | 4     | 0             | 0     | 0     | 0             | 0     | 0     |
|           | 2010-11 | 1             | 0     | 1     | 0             | 0     | 0     | 0             | 0     | 0     | 0             | 0     | 0     |



TABLE 12 (Contd)

## ESTIMATED AREA UNDER DIFFERENT CROPS BASED ON THE DATA RECORDED BY THE SUPERVISOR / PATWARI

| Season    | Year    | Cotton     |     |                            |             | Sugarcane  |        |                            |             | Groundnut  |     |                            |             | Cashewnut  |     |                            |             |
|-----------|---------|------------|-----|----------------------------|-------------|------------|--------|----------------------------|-------------|------------|-----|----------------------------|-------------|------------|-----|----------------------------|-------------|
|           |         | Supervisor |     | Patwari                    |             | Supervisor |        | Patwari                    |             | Supervisor |     | Patwari                    |             | Supervisor |     | Patwari                    |             |
|           |         | (a)        | (b) | $\frac{b-a}{a} \times 100$ | % Variation | (a)        | (b)    | $\frac{b-a}{a} \times 100$ | % Variation | (a)        | (b) | $\frac{b-a}{a} \times 100$ | % Variation | (a)        | (b) | $\frac{b-a}{a} \times 100$ | % Variation |
| Phase-I   | 2011-12 | 184        | 189 | 2.9                        | 655         | 654        | -0.1   | 588                        | 565         | -4         | 98  | 100                        | 2.1         |            |     |                            |             |
|           | 2010-11 | 200        | 204 | 2.00                       | 583         | 504        | -13.55 | 511                        | 492         | -3.72      | 227 | 207                        | -8.81       |            |     |                            |             |
|           | 2011-12 | 43         | 38  | -12.8                      | 63          | 70         | 11.2   | 657                        | 550         | -16.4      | 5   | 12                         | 150.8       |            |     |                            |             |
| Phase-II  | 2010-11 | 33         | 33  | 0.00                       | 122         | 108        | -11.48 | 238                        | 202         | -15.13     | 0   | 0                          | 0.00        |            |     |                            |             |
|           | 2011-12 | 55         | 47  | -13.9                      | 92          | 72         | -21.2  | 133                        | 25          | -81.4      | 0   | 0                          | 0           |            |     |                            |             |
| Phase-III | 2010-11 | 88         | 68  | -22.73                     | 81          | 105        | 29.63  | 10                         | 0           | -100.00    | 0   | 0                          | 0.00        |            |     |                            |             |

**TABLE 13**  
**CROPWISE ESTIMATED AREA BASED ON SCHEDULE A.S.1.1 (PAGE TOTALLING OF KHASRA REGISTER - 2011-12) (State Sample)**

| Crop      | (In ha) |        | Ratio of VAO's entries and that of Supervisors col.3 / col 2 |
|-----------|---------|--------|--------------------------------------------------------------|
|           | 1       | 2      | 3                                                            |
| Paddy     |         | 325511 | 324972                                                       |
| Jowar     |         | 51063  | 51121                                                        |
| Bajra     |         | 11518  | 11553                                                        |
| Ragi      |         | 13081  | 13033                                                        |
| Cotton    |         | 22656  | 22629                                                        |
| Sugarcane |         | 63342  | 63408                                                        |
| Groundnut |         | 59670  | 59654                                                        |
| Cashewnut |         | 22500  | 22500                                                        |

TABLE 14

## CROPWISE NUMBER OF EXPERIMENTS PLANNED FOR CHECK AT HARVEST AND THE RESPONSE ACHIEVED (2011-12)

| Crop                  | Central |         |              |      |            | State   |         |         |              |      | Pooled     |       |         |         |              |      |            |
|-----------------------|---------|---------|--------------|------|------------|---------|---------|---------|--------------|------|------------|-------|---------|---------|--------------|------|------------|
|                       | Checked |         |              |      |            | Checked |         |         |              |      | Checked    |       |         |         |              |      |            |
|                       | Planned | Harvest | Post harvest | Loss | Not report | Total   | Planned | Harvest | Post harvest | Loss | Not report | Total | Planned | Harvest | Post harvest | Loss | Not report |
| Paddy - Kar / Kuruvai | 60      | 57      | 0            | 3    | 0          | 60      | 60      | 60      | 0            | 0    | 0          | 60    | 120     | 117     | 0            | 3    | 0          |
| Paddy - Samba         | 140     | 139     | 0            | 1    | 0          | 140     | 140     | 140     | 0            | 0    | 0          | 140   | 280     | 279     | 0            | 1    | 0          |
| Paddy - Navarai       | 40      | 40      | 0            | 0    | 0          | 40      | 40      | 40      | 0            | 0    | 0          | 40    | 80      | 80      | 0            | 0    | 0          |
| Jowar - I             | 22      | 20      | 0            | 2    | 0          | 22      | 22      | 22      | 0            | 0    | 0          | 22    | 44      | 42      | 0            | 2    | 0          |
| Jowar - UI            | 38      | 37      | 0            | 1    | 0          | 38      | 38      | 38      | 0            | 0    | 0          | 38    | 76      | 75      | 0            | 1    | 0          |
| Bajra - I             | 16      | 16      | 0            | 0    | 0          | 16      | 16      | 16      | 0            | 0    | 0          | 16    | 32      | 32      | 0            | 0    | 0          |
| Bajra - UI            | 34      | 34      | 0            | 0    | 0          | 34      | 34      | 34      | 0            | 0    | 0          | 34    | 68      | 68      | 0            | 0    | 0          |
| Ragi - I              | 28      | 28      | 0            | 0    | 0          | 28      | 28      | 28      | 0            | 0    | 0          | 28    | 56      | 56      | 0            | 0    | 0          |
| Ragi - UI             | 22      | 21      | 0            | 1    | 0          | 22      | 22      | 22      | 0            | 0    | 0          | 22    | 44      | 43      | 0            | 1    | 0          |
| Cotton - I            | 30      | 30      | 0            | 0    | 0          | 30      | 30      | 30      | 0            | 0    | 0          | 30    | 60      | 60      | 0            | 0    | 0          |
| Cotton - UI           | 90      | 90      | 0            | 0    | 0          | 90      | 90      | 90      | 0            | 0    | 0          | 90    | 180     | 180     | 0            | 0    | 0          |
| Groundnut - I         | 56      | 56      | 0            | 0    | 0          | 56      | 56      | 56      | 0            | 0    | 0          | 56    | 112     | 112     | 0            | 0    | 0          |
| Groundnut - UI        | 84      | 84      | 0            | 0    | 0          | 84      | 84      | 84      | 0            | 0    | 0          | 84    | 168     | 168     | 0            | 0    | 0          |
| Sugarcane             | 60      | 57      | 0            | 3    | 0          | 60      | 60      | 60      | 0            | 0    | 0          | 60    | 120     | 117     | 0            | 3    | 0          |
| Gingelly (I)          | 30      | 30      | 0            | 0    | 0          | 30      | 30      | 30      | 0            | 0    | 0          | 30    | 60      | 60      | 0            | 0    | 0          |
| Gingelly (UI)         | 30      | 30      | 0            | 0    | 0          | 30      | 30      | 30      | 0            | 0    | 0          | 30    | 60      | 60      | 0            | 0    | 0          |
| Total                 | 780     | 769     | 0            | 11   | 0          | 780     | 780     | 780     | 0            | 0    | 0          | 780   | 1560    | 1549    | 0            | 11   | 0          |



**TABLE 14 (Concid.)**  
**CROPWISE NUMBER OF EXPERIMENTS PLANNED FOR CHECK AT HARVEST AND THE RESPONSE ACHIEVED (2010-11)**

| Crop                  | Central |         |              |      |            | State   |         |         |              |      | Pooled     |       |         |         |              |      |            |
|-----------------------|---------|---------|--------------|------|------------|---------|---------|---------|--------------|------|------------|-------|---------|---------|--------------|------|------------|
|                       | Checked |         |              |      |            | Checked |         |         |              |      | Checked    |       |         |         |              |      |            |
|                       | Planned | Harvest | Post harvest | Loss | Not report | Total   | Planned | Harvest | Post harvest | Loss | Not report | Total | Planned | Harvest | Post harvest | Loss | Not report |
| Paddy - Kar / Kuruwai | 60      | 58      | 2            | 0    | 0          | 60      | 60      | 60      | 0            | 0    | 0          | 60    | 120     | 118     | 2            | 0    | 0          |
| Paddy - Samba         | 140     | 138     | 0            | 2    | 0          | 140     | 140     | 138     | 2            | 0    | 0          | 140   | 280     | 276     | 2            | 2    | 0          |
| Paddy - Navarai       | 40      | 40      | 0            | 0    | 0          | 40      | 40      | 40      | 0            | 0    | 0          | 40    | 80      | 80      | 0            | 0    | 0          |
| Jowar - I             | 22      | 8       | 0            | 14   | 0          | 22      | 22      | 12      | 0            | 10   | 0          | 22    | 44      | 20      | 0            | 24   | 0          |
| Jowar - UI            | 38      | 38      | 0            | 0    | 0          | 38      | 38      | 36      | 2            | 0    | 0          | 38    | 76      | 74      | 2            | 0    | 0          |
| Bajra - I             | 16      | 6       | 0            | 10   | 0          | 16      | 16      | 8       | 0            | 8    | 0          | 16    | 32      | 14      | 0            | 18   | 0          |
| Bajra - UI            | 34      | 34      | 0            | 0    | 0          | 34      | 34      | 30      | 4            | 0    | 0          | 34    | 68      | 64      | 4            | 0    | 0          |
| Ragi - I              | 28      | 28      | 0            | 0    | 0          | 28      | 28      | 26      | 0            | 2    | 0          | 28    | 56      | 54      | 0            | 2    | 0          |
| Ragi - UI             | 22      | 22      | 0            | 0    | 0          | 22      | 22      | 22      | 0            | 0    | 0          | 22    | 44      | 44      | 0            | 0    | 0          |
| Cotton - I            | 30      | 30      | 0            | 0    | 0          | 30      | 30      | 30      | 0            | 0    | 0          | 30    | 60      | 60      | 0            | 0    | 0          |
| Cotton - UI           | 90      | 90      | 0            | 0    | 0          | 90      | 90      | 80      | 0            | 10   | 0          | 90    | 180     | 170     | 0            | 10   | 0          |
| Groundnut - I         | 56      | 55      | 0            | 1    | 0          | 56      | 56      | 49      | 3            | 4    | 0          | 56    | 112     | 104     | 3            | 5    | 0          |
| Groundnut - UI        | 84      | 78      | 0            | 6    | 0          | 84      | 84      | 83      | 1            | 0    | 0          | 84    | 168     | 161     | 1            | 6    | 0          |
| Sugarcane             | 60      | 60      | 0            | 0    | 0          | 60      | 60      | 60      | 0            | 0    | 0          | 60    | 120     | 120     | 0            | 0    | 0          |
| Gingelly (I)          | 30      | 29      | 0            | 1    | 0          | 30      | 30      | 18      | 0            | 12   | 0          | 30    | 60      | 47      | 0            | 13   | 0          |
| Gingelly (UI)         | 30      | 24      | 0            | 6    | 0          | 30      | 30      | 26      | 0            | 4    | 0          | 30    | 60      | 50      | 0            | 10   | 0          |
| Total                 | 780     | 738     | 2            | 40   | 0          | 780     | 780     | 718     | 12           | 50   | 0          | 780   | 1560    | 1456    | 14           | 90   | 0          |

TABLE 15

## CROP WISE ESTIMATES OF YIELD RATE (kg /hec) DURING THE YEAR 2011-12 WITH SAMPLING ERROR

| Crop                  | Central            |          |                      |          | State              |          |                      |          | Pooled             |          |                      |          |
|-----------------------|--------------------|----------|----------------------|----------|--------------------|----------|----------------------|----------|--------------------|----------|----------------------|----------|
|                       | No. of Experiments |          | Estimated yield rate |          | No. of Experiments |          | Estimated yield rate |          | No. of Experiments |          | Estimated yield rate |          |
|                       | Planned            | Analysed | % Sampling error     |          | Planned            | Analysed | % Sampling error     |          | Planned            | Analysed | % Sampling error     |          |
| Paddy - Kar / Kuruwai | 60                 | 57       | 2.83                 | 3998.170 | 60                 | 60       | 2.43                 | 3975.380 | 120                | 117      | 2.43                 | 3985.010 |
| Paddy - Samba         | 140                | 139      | 2.62                 | 4045.240 | 140                | 140      | 1.94                 | 3759.600 | 280                | 279      | 1.94                 | 3851.800 |
| Paddy - Navarai       | 40                 | 40       | 5.58                 | 3851.340 | 40                 | 40       | 3.13                 | 3860.440 | 80                 | 80       | 3.13                 | 3858.240 |
| Jowar - I             | 22                 | 20       | 6.55                 | 1595.500 | 22                 | 22       | 13.19                | 1355.390 | 44                 | 42       | 13.19                | 1534.340 |
| Jowar - UI            | 38                 | 37       | 7.67                 | 837.200  | 38                 | 38       | 8.45                 | 765.500  | 76                 | 75       | 8.45                 | 801.590  |
| Bajra - I             | 16                 | 16       | 6.63                 | 2961.720 | 16                 | 16       | 6.33                 | 2690.580 | 32                 | 32       | 6.33                 | 2806.980 |
| Bajra - UI            | 34                 | 34       | 9.69                 | 1661.920 | 34                 | 34       | 13.09                | 2195.630 | 68                 | 68       | 13.09                | 1789.340 |
| Ragi - I              | 28                 | 28       | 4.04                 | 3113.870 | 28                 | 28       | 3.12                 | 3221.560 | 56                 | 56       | 3.12                 | 3179.630 |
| Ragi - UI             | 22                 | 21       | 7.94                 | 2688.090 | 22                 | 22       | 7.20                 | 2656.690 | 44                 | 43       | 7.20                 | 2670.680 |
| Cotton - I            | 30                 | 30       | 0.00                 | 0.000    | 30                 | 30       | 0.000                | 0.000    | 60                 | 60       | 0.000                | 1442.800 |
| Cotton - UI           | 90                 | 90       | 0.00                 | 0.000    | 90                 | 90       | 0.000                | 0.000    | 180                | 180      | 0.000                | 1368.530 |
| Groundnut - I         | 56                 | 56       | 3.72                 | 3940.170 | 56                 | 56       | 8.31                 | 3883.150 | 112                | 112      | 8.31                 | 3930.420 |
| Groundnut - UI        | 84                 | 84       | 3.39                 | 2176.780 | 84                 | 84       | 3.04                 | 2131.960 | 168                | 168      | 3.04                 | 2151.460 |
| Sugarcane *           | 60                 | 57       | 4.73                 | 115.740  | 60                 | 60       | 3.35                 | 108.600  | 120                | 117      | 3.35                 | 110.790  |
| Gingelly (I)          | 30                 | 30       | 9.00                 | 446.970  | 30                 | 30       | 16.79                | 485.280  | 60                 | 60       | 16.79                | 454.470  |
| Gingelly (UI)         | 30                 | 30       | 6.87                 | 770.350  | 30                 | 30       | 6.47                 | 734.080  | 60                 | 60       | 6.47                 | 750.270  |

@ - Estimated yield rate and percentage SE have been worked out for pooled sample only

\* - Tonne / hect.

**TABLE 16**  
**NUMBER OF EXPERIMENTS FOR WHICH NO SUBSTITUTION WAS DONE**

| Year    | Sample  | Total no. of Experiments planned | No. of experiments for which no substitution was done |                |
|---------|---------|----------------------------------|-------------------------------------------------------|----------------|
|         |         |                                  | Experiments                                           | Survey numbers |
| 2011-12 | Central | 780                              | 683                                                   | 765            |
|         | State   | 780                              | 690                                                   | 774            |
|         | Pooled  | 1560                             | 1373                                                  | 1539           |
| 2010-11 | Central | 780                              | 584                                                   | 740            |
|         | State   | 780                              | 590                                                   | 730            |
|         | Pooled  | 1560                             | 1174                                                  | 1470           |

**TABLE 17**  
**CROPWISE DISTRIBUTION OF EXPERIMENTS ACCORDING TO THE MISTAKES OBSERVED DURING THE YEAR 2011-12**  
**CENTRAL**

| Crop                  | No. of Experiments<br>checked at Harvest<br>/Post Harvest | e0         | e1       | e2        | e3       | e4         | e5       | e6       | e7       | e8       | e9        | e10       | e14      | e15      | e16      |
|-----------------------|-----------------------------------------------------------|------------|----------|-----------|----------|------------|----------|----------|----------|----------|-----------|-----------|----------|----------|----------|
| Paddy - Kar / Kuruwai | 57                                                        | 20         | 3        | 5         | 0        | 32         | 0        | 1        | 0        | 0        | 8         | 3         | 0        | 0        | 0        |
| Paddy - Samba         | 139                                                       | 105        | 4        | 5         | 0        | 24         | 0        | 0        | 0        | 0        | 12        | 3         | 0        | 0        | 0        |
| Paddy - Navarai       | 40                                                        | 12         | 0        | 0         | 0        | 27         | 0        | 0        | 2        | 0        | 2         | 2         | 0        | 0        | 0        |
| Jowar - I             | 20                                                        | 15         | 0        | 0         | 0        | 0          | 0        | 0        | 0        | 0        | 3         | 2         | 0        | 0        | 0        |
| Jowar - UI            | 37                                                        | 31         | 0        | 0         | 2        | 0          | 0        | 2        | 0        | 0        | 1         | 0         | 0        | 1        | 0        |
| Bajra - I             | 16                                                        | 15         | 0        | 0         | 0        | 0          | 0        | 0        | 0        | 1        | 0         | 0         | 0        | 0        | 5        |
| Bajra - UI            | 34                                                        | 27         | 0        | 0         | 0        | 7          | 0        | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0        |
| Ragi - I              | 28                                                        | 26         | 0        | 0         | 0        | 0          | 0        | 0        | 0        | 0        | 2         | 0         | 0        | 0        | 0        |
| Ragi - UI             | 21                                                        | 21         | 0        | 0         | 0        | 0          | 0        | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0        |
| Cotton - I            | 30                                                        | 28         | 0        | 0         | 0        | 1          | 0        | 0        | 0        | 0        | 0         | 1         | 0        | 0        | 0        |
| Cotton - UI           | 90                                                        | 84         | 0        | 0         | 0        | 2          | 0        | 1        | 0        | 0        | 1         | 3         | 0        | 0        | 0        |
| Groundnut - I         | 56                                                        | 35         | 0        | 0         | 0        | 20         | 0        | 0        | 0        | 0        | 3         | 0         | 0        | 0        | 0        |
| Groundnut - UI        | 84                                                        | 61         | 0        | 0         | 0        | 22         | 0        | 0        | 0        | 0        | 2         | 1         | 0        | 0        | 0        |
| Sugarcane             | 57                                                        | 49         | 0        | 0         | 0        | 4          | 0        | 0        | 0        | 0        | 2         | 1         | 2        | 0        | 0        |
| Gingelly (I)          | 30                                                        | 25         | 0        | 0         | 0        | 0          | 0        | 0        | 0        | 0        | 5         | 1         | 0        | 0        | 0        |
| Gingelly (UI)         | 30                                                        | 29         | 0        | 0         | 0        | 0          | 0        | 0        | 0        | 0        | 0         | 1         | 0        | 0        | 0        |
| <b>Total</b>          | <b>769</b>                                                | <b>583</b> | <b>7</b> | <b>10</b> | <b>2</b> | <b>139</b> | <b>0</b> | <b>4</b> | <b>2</b> | <b>1</b> | <b>41</b> | <b>18</b> | <b>2</b> | <b>1</b> | <b>5</b> |

e0 = No. of experiments for which no mistakes observed

e1 = Error in selection of Survey / Sub Number

e3 = Error in reporting seed variety

e4 = Error in reporting seed rate

e5 = Error in reporting irrigation particular

e6 = Error in reporting application of fertilizers

e7 = Error in reporting application of manures

e8 = Error in reporting application of pesticides

e9 = Error in measurement of field

e10 = Error in checking random number for location of plots

e15 = Error in reporting proportion of experimental crops in mixture / wrong reporting constituents in mixtures

e16 = Any one of the item missing

Cont...

TABLE 17

## CROPWISE DISTRIBUTION OF EXPERIMENTS ACCORDING TO THE MISTAKES OBSERVED DURING THE YEAR 2011-12

## STATE

| Crop                 | No. of Experiments<br>checked at Harvest /<br>Post Harvest | e0  | e1 | e2 | e3 | e4 | e5 | e6 | e7 | e8 | e9 | e10 | e14 | e16 |
|----------------------|------------------------------------------------------------|-----|----|----|----|----|----|----|----|----|----|-----|-----|-----|
|                      |                                                            |     |    |    |    |    |    |    |    |    |    |     |     |     |
| Paddy - Kar/ Kuruvai | 60                                                         | 54  | 0  | 0  | 0  | 5  | 0  | 1  | 0  | 0  | 0  | 0   | 0   | 0   |
| Paddy - Samba        | 140                                                        | 125 | 0  | 0  | 0  | 12 | 0  | 0  | 0  | 0  | 2  | 1   | 0   | 0   |
| Paddy - Navarai      | 40                                                         | 37  | 0  | 0  | 0  | 2  | 0  | 0  | 1  | 1  | 0  | 0   | 0   | 0   |
| Jowar - I            | 22                                                         | 22  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0   | 0   | 0   |
| Jowar - UI           | 38                                                         | 30  | 0  | 0  | 0  | 6  | 0  | 0  | 1  | 0  | 1  | 0   | 4   | 0   |
| Bajra - I            | 16                                                         | 14  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 2  | 1   | 0   | 0   |
| Bajra - UI           | 34                                                         | 32  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 2  | 0   | 0   | 0   |
| Ragi - I             | 28                                                         | 27  | 0  | 0  | 0  | 0  | 0  | 0  | 1  | 1  | 0  | 0   | 0   | 0   |
| Ragi - UI            | 22                                                         | 19  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 3  | 0   | 0   | 0   |
| Cotton - I           | 30                                                         | 20  | 0  | 0  | 0  | 2  | 0  | 0  | 0  | 0  | 8  | 0   | 0   | 0   |
| Cotton - UI          | 90                                                         | 67  | 0  | 0  | 0  | 14 | 0  | 1  | 0  | 0  | 6  | 0   | 2   | 0   |
| Groundnut - I        | 56                                                         | 47  | 7  | 0  | 0  | 2  | 0  | 0  | 0  | 0  | 0  | 0   | 0   | 0   |
| Groundnut - UI       | 84                                                         | 60  | 0  | 0  | 0  | 20 | 0  | 1  | 0  | 0  | 4  | 1   | 0   | 0   |
| Sugarcane            | 60                                                         | 54  | 0  | 0  | 0  | 4  | 0  | 0  | 0  | 0  | 1  | 2   | 0   | 0   |
| Gingelly (I)         | 30                                                         | 28  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0   | 2   | 0   |
| Gingelly (UI)        | 30                                                         | 29  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 1   | 0   | 0   |
| Total                | 780                                                        | 665 | 7  | 0  | 0  | 67 | 0  | 3  | 3  | 2  | 29 | 6   | 8   | 0   |

e0 = No. of experiments for which no mistakes observed

e1 = Error in selection of Survey / Sub Number

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e4 = Error in reporting seed rate

e5 = Error in reporting irrigation particular

e6 = Error in reporting application of fertilizers

e7 = Error in reporting application of manures

e8 = Error in reporting application of pesticides

e9 = Error in measurement of field

e10 = Error in checking random number for location of plots

e15 = Error in reporting proportion of experimental crops in mixture / wrong reporting constituents in mixtures

e16 = Any one of the item missing

TABLE 17

## CROPWISE DISTRIBUTION OF EXPERIMENTS ACCORDING TO THE MISTAKES OBSERVED DURING THE YEAR 2011-12

| Crop                  | No. of Experiments<br>checked at Harvest<br>/Post Harvest | POOLED |    |    |    |     |    |    |    |    |    |     |     |     |     |  |
|-----------------------|-----------------------------------------------------------|--------|----|----|----|-----|----|----|----|----|----|-----|-----|-----|-----|--|
|                       |                                                           | e0     | e1 | e2 | e3 | e4  | e5 | e6 | e7 | e8 | e9 | e10 | e14 | e15 | e16 |  |
| Paddy - Kar / Kuruwai | 117                                                       | 74     | 3  | 5  | 0  | 37  | 0  | 2  | 0  | 0  | 8  | 3   | 0   | 0   | 0   |  |
| Paddy - Samba         | 279                                                       | 230    | 4  | 5  | 0  | 36  | 0  | 0  | 0  | 0  | 14 | 4   | 0   | 0   | 0   |  |
| Paddy - Navarai       | 80                                                        | 49     | 0  | 0  | 0  | 29  | 0  | 0  | 3  | 1  | 2  | 2   | 0   | 0   | 0   |  |
| Jowar - I             | 42                                                        | 37     | 0  | 0  | 0  | 0   | 0  | 0  | 0  | 0  | 3  | 2   | 0   | 0   | 0   |  |
| Jowar - UI            | 75                                                        | 61     | 0  | 0  | 2  | 6   | 0  | 2  | 1  | 0  | 2  | 0   | 4   | 1   | 0   |  |
| Bajra - I             | 32                                                        | 29     | 0  | 0  | 0  | 0   | 0  | 0  | 0  | 1  | 2  | 1   | 0   | 0   | 5   |  |
| Bajra - UI            | 68                                                        | 59     | 0  | 0  | 0  | 7   | 0  | 0  | 0  | 0  | 2  | 0   | 0   | 0   | 0   |  |
| Ragi - I              | 56                                                        | 53     | 0  | 0  | 0  | 0   | 0  | 0  | 1  | 1  | 2  | 0   | 0   | 0   | 0   |  |
| Ragi - UI             | 43                                                        | 40     | 0  | 0  | 0  | 0   | 0  | 0  | 0  | 0  | 3  | 0   | 0   | 0   | 0   |  |
| Cotton - I            | 60                                                        | 48     | 0  | 0  | 0  | 3   | 0  | 0  | 0  | 0  | 8  | 1   | 0   | 0   | 0   |  |
| Cotton - UI           | 180                                                       | 151    | 0  | 0  | 0  | 16  | 0  | 2  | 0  | 0  | 7  | 3   | 2   | 0   | 0   |  |
| Groundnut - I         | 112                                                       | 82     | 7  | 0  | 0  | 22  | 0  | 0  | 0  | 0  | 3  | 0   | 0   | 0   | 0   |  |
| Groundnut - UI        | 168                                                       | 121    | 0  | 0  | 0  | 42  | 0  | 1  | 0  | 0  | 6  | 2   | 0   | 0   | 0   |  |
| Sugarcane             | 117                                                       | 103    | 0  | 0  | 0  | 8   | 0  | 0  | 0  | 0  | 3  | 3   | 2   | 0   | 0   |  |
| Gingelly (I)          | 60                                                        | 53     | 0  | 0  | 0  | 0   | 0  | 0  | 0  | 0  | 5  | 1   | 2   | 0   | 0   |  |
| Gingelly (UI)         | 60                                                        | 58     | 0  | 0  | 0  | 0   | 0  | 0  | 0  | 0  | 0  | 2   | 0   | 0   | 0   |  |
| Total                 | 1549                                                      | 1248   | 14 | 10 | 2  | 206 | 0  | 7  | 5  | 3  | 70 | 24  | 10  | 1   | 5   |  |

e0 = No. of experiments for which no mistakes observed

e1 = Error in selection of Survey / Sub Number

e3 = Error in reporting seed variety

e4 = Error in reporting seed rate

e5 = Error in reporting irrigation particular

e6 = Error in reporting application of fertilizers

e7 = Error in reporting application of manures

e8 = Error in reporting application of pesticides

e9 = Error in measurement of field

e10 = Error in checking random number for location of plots

e15 = Error in reporting proportion of experimental crops in mixture / wrong reporting constituents in mixtures

e16 = Any one of the item missing

Cont...

**TABLE 17** (Contd.)  
**CROPWISE DISTRIBUTION OF EXPERIMENTS ACCORDING TO THE MISTAKES OBSERVED DURING THE YEAR 2010-11**

| Crop                  | No. of Experiments<br>checked at Harvest<br>/Post Harvest | POOLED     |          |           |            |          |            |            |            |            |           |           |           |           |           | e16      |
|-----------------------|-----------------------------------------------------------|------------|----------|-----------|------------|----------|------------|------------|------------|------------|-----------|-----------|-----------|-----------|-----------|----------|
|                       |                                                           | e0         | e1       | e3        | e4         | e5       | e6         | e7         | e8         | e9         | e10       | e12       | e13       | e14       | e15       |          |
| Paddy - Kar / Kuruwai | 119                                                       | 58         | 0        | 0         | 40         | 0        | 47         | 24         | 21         | 13         | 3         |           |           |           |           | 0        |
| Paddy - Samba         | 278                                                       | 107        | 0        | 9         | 52         | 0        | 133        | 90         | 84         | 12         | 4         |           |           |           |           | 0        |
| Paddy - Navarai       | 77                                                        | 29         | 0        | 0         | 30         | 0        | 39         | 25         | 31         | 5          | 0         |           |           |           |           | 0        |
| Jowar - I             | 37                                                        | 16         | 0        | 1         | 0          | 0        | 4          | 12         | 0          | 7          | 0         |           |           |           | 1         | 0        |
| Jowar - UI            | 73                                                        | 58         | 0        | 2         | 4          | 0        | 0          | 9          | 0          | 0          | 0         |           |           |           | 2         | 0        |
| Bajra - I             | 31                                                        | 15         | 0        | 0         | 4          | 0        | 13         | 11         | 0          | 1          | 0         |           |           |           | 0         | 0        |
| Bajra - UI            | 66                                                        | 40         | 0        | 0         | 2          | 0        | 12         | 20         | 0          | 0          | 3         |           |           |           | 0         | 0        |
| Ragi - I              | 56                                                        | 34         | 0        | 0         | 12         | 0        | 14         | 12         | 3          | 6          | 1         |           |           |           | 0         | 0        |
| Ragi - UI             | 44                                                        | 32         | 0        | 0         | 0          | 0        | 0          | 2          | 0          | 7          | 0         |           |           |           | 0         | 0        |
| Cotton - I            | 115                                                       | 60         | 0        | 0         | 10         | 0        | 36         | 25         | 29         | 8          | 0         |           |           |           | 0         | 0        |
| Cotton - UI           | 120                                                       | 60         | 0        | 4         | 4          | 0        | 30         | 28         | 20         | 16         | 3         |           |           |           | 0         | 0        |
| Groundnut - I         | 110                                                       | 50         | 0        | 0         | 25         | 0        | 43         | 30         | 20         | 5          | 1         |           |           |           | 0         | 0        |
| Groundnut - UI        | 165                                                       | 82         | 0        | 1         | 40         | 0        | 16         | 44         | 5          | 16         | 3         |           |           |           | 0         | 0        |
| Sugarcane             | 119                                                       | 61         | 0        | 1         | 10         | 0        | 51         | 31         | 9          | 3          | 0         |           |           |           | 1         | 0        |
| Gingelly (I)          | 35                                                        | 28         | 0        | 0         | 1          | 0        | 6          | 3          | 0          | 0          | 0         |           |           |           | 0         | 0        |
| Gingelly (UI)         | 83                                                        | 56         | 0        | 0         | 0          | 1        | 6          | 13         | 4          | 4          | 0         |           |           |           | 3         | 0        |
| <b>Total</b>          | <b>1528</b>                                               | <b>786</b> | <b>0</b> | <b>18</b> | <b>234</b> | <b>1</b> | <b>450</b> | <b>379</b> | <b>226</b> | <b>103</b> | <b>18</b> | <b>34</b> | <b>34</b> | <b>34</b> | <b>34</b> | <b>0</b> |

e0 = No. of experiments for which no mistakes observed

e1 = Error in selection of Survey / Sub Number

e3 = Error in reporting seed variety

e4 = Error in reporting seed rate

e5 = Error in reporting irrigation particular

e6 = Error in reporting application of fertilizers

e7 = Error in reporting application of manures

e8 = Error in reporting application of pesticides

e9 = Error in measurement of field

e10 = Error in checking random number for location of plots

e15 = Error in reporting proportion of experimental crops in mixture / wrong reporting constituents in mixtures

e16 = Any one of the item missing

**TABLE 18**  
**YEAR-WISE POSITION OF SUPPLY AND USE OF CROP CUTTING EQUIPMENTS**

| Year    | Sample  | Equipments supplied |       |         |       |         |       |      |       | Equipments not supplied |      |         |      |         |      |      |       |
|---------|---------|---------------------|-------|---------|-------|---------|-------|------|-------|-------------------------|------|---------|------|---------|------|------|-------|
|         |         | Tape                | %     | Balance | %     | Weights | %     | Pegs | %     | Tape                    | %    | Balance | %    | Weights | %    | Pegs | %     |
| 2011-12 | Central | 762                 | 99.09 | 755     | 98.18 | 755     | 98.18 | 657  | 85.44 | 7                       | 0.91 | 14      | 1.82 | 14      | 1.82 | 112  | 14.56 |
|         | State   | 756                 | 96.92 | 756     | 96.92 | 756     | 96.92 | 756  | 96.92 | 24                      | 3.08 | 24      | 3.08 | 24      | 3.08 | 24   | 3.08  |
|         | Pooled  | 1518                | 98.00 | 1511    | 97.55 | 1511    | 97.55 | 1413 | 91.22 | 31                      | 2.00 | 38      | 2.45 | 38      | 2.45 | 136  | 8.78  |
|         | Central | 735                 | 99.59 | 730     | 98.92 | 730     | 98.92 | 632  | 85.64 | 5                       | 0.68 | 10      | 1.36 | 10      | 1.36 | 108  | 14.63 |
|         | State   | 710                 | 98.89 | 710     | 98.89 | 708     | 98.61 | 710  | 98.89 | 20                      | 2.79 | 20      | 2.79 | 22      | 3.06 | 20   | 2.79  |
|         | Pooled  | 1445                | 99.24 | 1440    | 98.90 | 1438    | 98.76 | 1342 | 92.17 | 25                      | 1.72 | 30      | 2.06 | 32      | 2.20 | 128  | 1.79  |
|         |         |                     |       |         |       |         |       |      |       |                         |      |         |      |         |      |      |       |



TABLE 19

STATEMENT SHOWING THE DETAILS OF YEAR-WISE CROP CUTTING EXPERIMENTS CONDUCTED BY THE DESIGNATED PRIMARY WORKERS (TRAINED) AND DELEGATED WORKERS

| Year    | Sample  | Total no. of Experiments checked at harvest and post harvest stage | No. of Experiments conducted by            |                            |      |                                                   | Untrained | Total |
|---------|---------|--------------------------------------------------------------------|--------------------------------------------|----------------------------|------|---------------------------------------------------|-----------|-------|
|         |         |                                                                    | Trained                                    |                            |      | Designated Persons (No change in primary workers) |           |       |
|         |         |                                                                    | Non-designated equivalent / senior persons | Delegated workers (Junior) |      |                                                   |           |       |
| 2011-12 | Central | 769                                                                | 5                                          | 15                         | 738  | 11                                                | 769       |       |
|         | State   | 780                                                                | 11                                         | 2                          | 751  | 16                                                | 780       |       |
|         | Pooled  | 1549                                                               | 16                                         | 17                         | 1489 | 27                                                | 1549      |       |
| 2010-11 | Central | 740                                                                | 23                                         | 36                         | 676  | 5                                                 | 740       |       |
|         | State   | 730                                                                | 28                                         | 12                         | 690  | 0                                                 | 730       |       |
|         | Pooled  | 1470                                                               | 51                                         | 48                         | 1366 | 5                                                 | 1470      |       |