

# IASRI Component of CHAMAN Program under MIDH

Study to test the developed alternative  
methodology for estimation of area and  
production of horticultural crops

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**Funding Agency:** Department of Agriculture and Cooperation (DAC), Ministry of Agriculture (MoA), Govt. of India

**Duration of the Project:** Two years and nine months

**Approved Budget:** ₹ 5.4938 Crore

**Date of start:** 16.09.2014

**Date of completion:** 15.06.2017

**Coverage of the study:** Six states namely, Maharashtra, Andhra Pradesh, Karnataka, Tamil Nadu, Gujarat and Himachal Pradesh

# Objectives

- To test the developed alternative methodology for estimation of acreage under each major fruit and vegetable crops
- To test the developed alternative methodology for estimation of yield rates and total production of major fruit and vegetable crops grown in the State
- To validate the accuracy of estimates of area under major fruits and vegetables using Remote sensing techniques with the area estimates using complete enumeration

# Physical Progress

- A proposal for declaring IASRI as NLA under MIDH along with Annual Action Plan for 2014-2015 in respect of IASRI Component of the CHAMAN project was prepared and submitted to Secretary (A&C) on 23.07.2014 for approval.
- An approval letter for declaring IASRI as NLA under MIDH for taking up CHAMAN project was received. This project is now a part of CHAMAN proposal.
- The CHAMAN project was launched by Secretary (A&C) on 16<sup>th</sup> September, 2014 in a National Workshop held at NASC Complex, New Delhi.
- The IASRI component of the CHAMAN project and Annual Action Plan of IASRI were presented in the launch workshop.

# Physical Progress

- A meeting of stakeholders of the CHAMAN project was also held on 16.09.2014 in which planning of the various activities to be carried out under the project were discussed.
- A formal request letter along with Annual Action Plan of IASRI for the year 2014-15 in respect of the CHAMAN project was submitted to the funding agency for the release of first installment of sanctioned budget to IASRI.
- Annual Action Plan was revised as per the format of MIDH and the revised Annual Action Plan was submitted to the funding agency for the release of first installment of sanctioned budget to IASRI.

# Physical Progress

- The revised Annual Action Plan was approved by the funding agency.
- A meeting was held on 08.10.2014 at Shastri Bhawan, New Delhi under the Chairmanship of Adviser (Hort.) in which the progress of the project till date and future plan for carrying out the activities of the study were discussed in detail.

## Physical Progress

- Correspondence with States' organizations like DES and State Horticulture Departments of all the six states under study was done to make them aware about the Survey component of the CHAMAN programme and seek the cooperation for conducting the study in these states.
- The district-wise data of area and production of horticulture crops of the five states namely, Tamil Nadu, Andhra Pradesh, Karnataka, Gujarat and Himachal Pradesh for the year 2012-13 and of Maharashtra for the year 2011-12 was obtained from the Division of Horticulture, Department of Agriculture and Cooperation.

# Selected districts in various States

| State                              | No. of Distts. | Stratum-wise No. of Distts. |           | Selected Districts                    |                          |
|------------------------------------|----------------|-----------------------------|-----------|---------------------------------------|--------------------------|
|                                    |                | Stratum-1                   | Stratum-2 | Stratum-1                             | Stratum-2                |
| <b>Andhra Pradesh (Seemandhra)</b> | 13             | 7                           | 6         | Chittoor, KNE (Kurnool), Anantapur    | Guntur, West Godavari    |
| <b>Gujarat</b>                     | 26             | 12                          | 14        | Valsad, Surat, Navsari, Bhavnagar     | Ahmedabad, Rajkot        |
| <b>Himachal Pradesh</b>            | 12             | 5                           | 7         | Shimla, Kangra                        | Una, Lahul & Spiti       |
| <b>Karnataka</b>                   | 30             | 14                          | 16        | Haveri, Bijapur, Kolar, Bagalkot      | Davanagere, Shimoga      |
| <b>Maharashtra</b>                 | 33             | 10                          | 23        | Nasik, Ratnagiri, Satara, Jalna       | Beed, Nandurbar          |
| <b>Tamil Nadu</b>                  | 31             | 9                           | 22        | Salem, Viluppuram, Krishnagiri, Erode | Ariyalur, Ramanathapuram |
| <b>Haryana</b>                     | 21             | 10                          | 11        | Sirsa, Karnal, Yamuna Nagar, Hissar   | Mewat, Palwal            |
| <b>Madhya Pradesh</b>              | 50             | 21                          | 29        | Ratlam, Ujjain, Dewas, Vidisha        | Singrauli, Sheopur       |



# Physical Progress

- The selection of districts for the survey has been completed for all the six states.
- A meeting with Mission Directors of State Horticulture Mission of all the six states under study along with 3-4 officials of State Horticulture Department of each State was held on 05.11.2014 at Krishi Bhawan, New Delhi under the Chairmanship of Additional Secretary (A&C), Ministry of Agriculture (MoA), Govt. of India in order to take the states on board for the study.
- A detailed presentation of project proposal, Work plan of the project and Responsibilities of the States were made during the meeting.

# Physical Progress

- The Nodal Officers in all the six states under study have been identified.
- An attempt is being made to obtain block-wise/mandal-wise/taluk-wise/tehsil-wise area under fruits and vegetables for the selected districts for selection of villages.
- The data for Karnataka, Gujarat, Tamil Nadu, Andhra Pradesh and Himachal Pradesh States have been received.
- A workshop was organized along with Launch Workshop of two more projects of the Institute during March 23-24, 2015 at IASRI, New Delhi in which technical program, future planning for the data collection and other project related issues were discussed in detail with the officials of all the six states.

# Physical Progress

- Preparation of a Request for Proposal (RFP) document for hiring Field Investigators in the States through an agency is in progress.
- One Research Associate has joined under the project and two more are expected to join shortly.
- The process of purchase of some of the equipments approved under the project is in progress.
- The possibility of utilizing Tablets for collection/uploading of data in one district in each of the six states proposed under study is being explored.

## Physical Progress

- In the process of exploring the possibility of utilizing GPS enabled Tabs, it has been learnt that a World Bank team in collaboration with Food and Agriculture Organization of United Nations has developed "Survey Solutions: CAPI (Computer Assisted Personal Interviewing) Software".
- Presentation of this software was made by the World Bank Official at IASRI.
- An attempt is being made to customize this software for our purpose with the help of World Bank officials and set up and configure an in-house server for the CAPI software so that the data from the field can be uploaded by the Field Investigators to IASRI server dedicated for this purpose.

# Physical Progress

- Quarterly progress reports (Physical and Financial) of the project for the first quarter (from 16.09.2014 to 15.12.2014) was prepared and submitted to the funding agency.
- Quarterly progress reports for the second quarter (from 16.12.2014 to 15.03.2015) is being prepared and will be submitted shortly.
- Annual Action Plan for the year 2015-16 was prepared and has been submitted to the funding agency for approval.

# Financial Progress

| S. No. | Head                                                                                                                                                                                         | Total budget sanctioned as per project proposal for the Year 2014-2015 | Total amount released | Expenditure during September 16, 2014 to March 04, 2015 | Balance on March 04, 2015 |
|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|-----------------------|---------------------------------------------------------|---------------------------|
| 1.     | Salaries of contractual staff employed under the project                                                                                                                                     | 8,39,600                                                               | 63,00,000             | -                                                       | 62,76,049                 |
| 2.     | Travel (TA & DA for IASRI officers and recruited Young Professionals for supervision of field work                                                                                           | 2,00,000                                                               |                       | -                                                       |                           |
| 3.     | Purchase of Desktop computers, Laser Printer, Photo Copier, Air Conditioners, Plotters, Scanner, Renovation of Room, Remote Sensing & GIS Lab and SS Lab, Furniture etc.                     | 3,00,000                                                               |                       | -                                                       |                           |
| 4.     | Procurement of GPS enabled Android based tablets (50)                                                                                                                                        | 18,00,000                                                              |                       | -                                                       |                           |
| 5.     | Contingencies (stationery, books and journals, paper publication fee for the journals, participation in workshop/conference/ symposium, holding of meetings in the study area, postage etc.) | 1,00,000                                                               |                       | 23,951                                                  |                           |
| 6.     | Organization of Initial workshop                                                                                                                                                             | 75,000                                                                 |                       | -                                                       |                           |
| 7.     | Overheads (Institutional charges @ 10% of total cost)                                                                                                                                        | 3,31,500                                                               |                       | -                                                       |                           |
| 8.     | Data collection cost for 6 states under study                                                                                                                                                | 85,68,000                                                              |                       | -                                                       |                           |
| 9.     | Travel cost for 6 states (TA & DA, fuel for vehicles for State officers for supervision of field work)                                                                                       | 1,20,000                                                               |                       | -                                                       |                           |
| 10.    | Data entry cost for 6 states                                                                                                                                                                 | 1,40,000                                                               |                       | -                                                       |                           |
| 11.    | Contingencies (stationery etc.) for 6 states                                                                                                                                                 | 1,20,000                                                               |                       | -                                                       |                           |
|        | <b>Grand Total (1-11)</b>                                                                                                                                                                    | <b>1,25,94,100</b>                                                     | <b>63,00,000</b>      | <b>23,951</b>                                           | <b>62,76,049*</b>         |

# Programmes approved during the previous years for which funds were released and the continuing activities proposed to be taken up during 2015-2016

| S.No. | Activities during 2014-2015 and to be continued during 2015-2016                                                                                      | Timeline        |
|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| 1.    | Organization of meetings & discussions with States                                                                                                    | June 15, 2017   |
| 2.    | Preparation of sampling frame and selection of samples                                                                                                | July 31, 2015   |
| 3.    | Recommendation of organizational structure required in States and Centre for implementing the methodology along with their role and functions defined | April 30, 2015  |
| 4.    | Recruitment of Field Investigators (FIs)/selection of agencies in States for data collection                                                          | May 31, 2015    |
| 5.    | Procurement of PDAs/Handsets                                                                                                                          | May 31, 2015    |
| 6.    | Development of Application for PDAs/Handsets or Out sourcing for the development of Application                                                       | June 30, 2015   |
| 7.    | Imparting training to Field Investigators                                                                                                             | June 30, 2015   |
| 8.    | Acquisition of market arrival data for the last 15 years                                                                                              | August 31, 2016 |
| 9.    | Acquisition of secondary data pertaining to area, production and productivity of important fruits and vegetables for the last 15 years                | August 31, 2016 |
| 10.   | Acquisition of Remote Sensing satellite data from MNCFC                                                                                               | March 31, 2016  |
| 11.   | Ground truthing                                                                                                                                       | June 30, 2016   |
| 12.   | Procurement of equipments approved under the project                                                                                                  | May 31, 2015    |

# Annual Action Plan 2015-2016

| S.No. | Activities during during 2015-2016                                                                                                                    | Timeline        |
|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| 1.    | Organization of meetings & discussions with States                                                                                                    | June 15, 2017   |
| 2.    | Preparation of sampling frame and selection of samples                                                                                                | July 31, 2015   |
| 3.    | Recommendation of organizational structure required in States and Centre for implementing the methodology along with their role and functions defined | April 30, 2015  |
| 4.    | Recruitment of Field Investigators (FIs)/selection of agencies in States for data collection                                                          | May 31, 2015    |
| 5.    | Procurement of PDAs/Handsets                                                                                                                          | May 31, 2015    |
| 6.    | Development of Application for PDAs/Handsets or Out sourcing for the development of Application                                                       | June 30, 2015   |
| 7.    | Imparting training to Field Investigators                                                                                                             | June 30, 2015   |
| 8.    | Acquisition of market arrival data for the last 15 years                                                                                              | August 31, 2016 |
| 9.    | Acquisition of secondary data pertaining to area, production and productivity of important fruits and vegetables for the last 15 years                | August 31, 2016 |
| 10.   | Acquisition of Remote Sensing satellite data from MNCFC                                                                                               | March 31, 2016  |
| 11.   | Ground truthing                                                                                                                                       | June 30, 2016   |
| 12.   | Procurement of equipments approved under the project                                                                                                  | May 31, 2015    |



# Annual Action Plan 2015-2016

| S.No. | Activities during during 2015-2016            | Timeline           |
|-------|-----------------------------------------------|--------------------|
| 13.   | Data collection and supervision of field work | June 30, 2016      |
| 14.   | Scrutiny of schedules and data entry          | September 30, 2016 |
| 15.   | Scrutiny of entered data                      | December 31, 2016  |
| 16.   | Digital image processing                      | September 30, 2016 |

# Annual Action Plan 2015-2016

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## Deliverables till March 31<sup>st</sup> 2016

- Data entry software
- Data analysis software

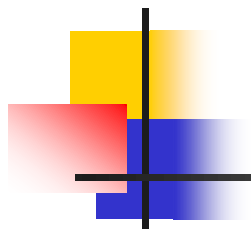


# Annual Action Plan 2015-2016



| S.No.                         | Activity                                                                                                                                                                                    | Amount<br>(Rs. in lakh)    | Timeline       |
|-------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|----------------|
| 1.                            | Salaries of contractual staff employed under the project                                                                                                                                    | 18.792                     | March 31, 2016 |
| 2.                            | Travel<br>(TA & DA for IASRI officers and recruited field supervisors for supervision of field work)                                                                                        | 5.32                       | March 31, 2016 |
| 3.                            | Purchase of Desktop computers, Laser Printer, Photo Copier, Air Conditioners, Plotters, Scanner, Renovation of Room, Remote Sensing & GIS Lab and SS Lab, Furniture etc.                    | 7.00                       | March 31, 2016 |
| 4.                            | Procurement of Remote sensing satellite data, Digital maps, toposheets etc.                                                                                                                 | To be provided<br>by MNCFC | March 31, 2016 |
| 5.                            | Contingencies (stationery, books and journals, paper publication fee for the journals, participation in workshop/conference/symposium, holding of meetings in the study area, postage etc.) | 1.00                       | March 31, 2016 |
| 6.                            | Overheads (Institutional charges @10% of total cost)                                                                                                                                        | 3.211                      | March 31, 2016 |
| <b>Sub Total ( 1 to 6)</b>    |                                                                                                                                                                                             | 35.323                     |                |
| 7.                            | Data collection cost for 6 states under study                                                                                                                                               | 342.72                     | March 31, 2016 |
| 8.                            | Travel cost for 6 states<br>(TA & DA, fuel for vehicles for State officers for supervision of field work)                                                                                   | 4.80                       | March 31, 2016 |
| 9.                            | Data entry cost for 6 states                                                                                                                                                                | 8.20                       | March 31, 2016 |
| 10.                           | Contingencies (stationery etc.) for 6 states                                                                                                                                                | 1.20                       | March 31, 2016 |
| <b>Grand Total ( 1 to 10)</b> |                                                                                                                                                                                             | 392.243                    |                |

**Rs. Three Crore ninety two lakh twenty four thousand three hundred only**



**Thanks**

THANKS