



**Results Framework Document
(R F D)**

for

Indian Agricultural Statistics Research Institute

New Delhi

(2011-2012)

SECTION 1:

Vision, Mission, Objectives and Functions

Vision

Statistics and ICT for enriching the quality of agricultural research.

Mission

Undertake research, education and training in agricultural statistics and computer applications for agricultural research.

Objectives

1. To support for research in bio-informatics for enhancing agricultural production and productivity
2. To develop efficient methodologies for enhancing the efficiency of agricultural research & production system
3. To develop methodology for precise estimation of important parameters related to agriculture
4. To provide ICT activities for enhancing efficiency of the system
5. To develop modeling and forecasting techniques for biological phenomenon
6. To impart training for human resources development

Functions

1. Undertaking basic, applied adaptive, strategic and anticipatory research in agricultural statistics and related fields and use these researches in meeting challenges and improving quality of agricultural research
2. Conduct post-graduate teaching and in-service, customized and sponsored training courses in Agricultural Statistics and Computer Applications at National and International level so as to be a lead centre of excellence in human resource development
3. Providing methodological support in strengthening National Agricultural Statistics System by establishing linkages with State departments of agriculture and allied fields, other research institutions, industry, etc
4. Development of Agricultural Knowledge Management and Information System for National Agricultural Research System
5. Providing advisory and consultancy services for strengthening the National Agricultural Research System and undertaking sponsored research and consultancy for National and International organizations

SECTION 2:
Inter se Priorities among key Objectives, Success Indicators and Targets

Objectives	Weight	Actions	Success Indicators	Unit	Weight	Target/Criteria value				
						Excellent 100%	Very Good 90%	Good 80%	Fair 70%	Poor 60%
1. To Support for research in Bio-informatics for enhancing agricultural production and productivity	19	Establishment of a new National Agricultural Bio-informatics Grid (NABG) and undertaking collaborative research projects with Institutions under NARS	Initiation of establishment of grid and collaborative research projects	Date	11	25/03/12	27/03/12	29/03/12	30/03/12	31/03/12
		M.Sc. programme in Bioinformatics	On time initiation of M.Sc. programme	Date	8	01/09/11	01/10/11	01/11/11	01/12/11	01/01/12
2. To develop efficient methodologies for enhancing the efficiency of agricultural research & production system	19	Development of efficient designs for agricultural systems research	Efficient designs for 2 colour microarray single factor and multi-factor experiments would be	Number	5	2	1	0	0	0

Objectives	Weight	Actions	Success Indicators	Unit	Weight	Target/Criteria value				
						Excellent 100%	Very Good 90%	Good 80%	Fair 70%	Poor 60%
			prepared							
		Support to 3 AICRPs in planning and designing of experiments and analysis of experimental data	Number of experimental trials analysed	Number	6	60	50	40	30	20
		Strengthening web resources on design of experiments, Service oriented computing and macros for customized analysis	Adding one new link/ existing one updated/developing two new macros	Number	6	3	2	1	0	0
		Analytical techniques of experimental data generated from a block design when errors follow t-family of distributions	Methodology development	Date	2	25/03/12	27/03/12	29/03/12	30/03/12	31/03/12

Objectives	Weight	Actions	Success Indicators	Unit	Weight	Target/Criteria value				
						Excellent 100%	Very Good 90%	Good 80%	Fair 70%	Poor 60%
3. To develop methodology for precise estimation of important parameters related to agriculture	9	Development and application of small area estimation techniques in agricultural/allied surveys	Methodology development and application	Date	5	25/03/12	27/03/12	29/03/12	30/03/12	31/03/12
		Development and application of traditional/remote sensing and GIS based techniques for estimation of parameters in agricultural/allied areas	Methodology development and application	Date	4	25/03/12	27/03/12	29/03/12	30/03/12	31/03/12
4. To provide ICT activities for enhancing efficiency of the system	19	Development of IS/DSS/Expert System/Software	IS/ESS/Software	Number	19	2	1	0	0	0
5. To develop modeling and forecasting	9	Development of Pest/disease forewarning models	Model development and validation	Number	5	2	1	0	0	0

Objectives	Weight	Actions	Success Indicators	Unit	Weight	Target/Criteria value				
						Excellent 100%	Very Good 90%	Good 80%	Fair 70%	Poor 60%
techniques for biological phenomenon		in important crops								
		Development of statistical forecast models in agriculture/fisheries using Non linear time-series analysis, re-sampling and data mining techniques	On-time completion	Date	4	25/03/12	27/03/12	29/03/12	30/03/12	31/03/12
6. To impart training for human resources development	14	Customized and sponsored training programmes	Number of training programmes organized	Number	14	5	4	3	2	1
Efficient functioning of the RFD system *	07	Timely submission of draft for approval	On-time submission	Date	2	10/06/11	14/06/11	16/06/11	20/06/11	22/06/11
		Timely submission of results	On-time submission	Date	1	01/05/12	03/05/12	04/05/12	05/05/12	06/05/12

Objectives	Weight	Actions	Success Indicators	Unit	Weight	Target/Criteria value				
						Excellent 100%	Very Good 90%	Good 80%	Fair 70%	Poor 60%
		Finalize a strategic plan for next five year plan	Timely initiation of activity	Date	2	10/12/11	15/12/11	20/12/11	24/12/11	31/12/11
		Identify potential areas of corruption related to organization activity and develop an action plan to mitigate them	Timely initiation of activity for implementation	Date	2	10/12/11	15/12/11	20/12/11	24/12/11	31/12/11
Implementation of Sevottam	04	Create a Sevottam compliant system to implement, monitor and review citizen's charter	Timely creation	Date	2	10/12/11	15/12/11	20/12/11	24/12/11	31/12/11
		Create a Sevottam compliant system to redress and monitor public grievances	Timely creation	Date	2	10/12/11	15/12/11	20/12/11	24/12/11	31/12/11

* Mandatory objective

SECTION 3:
Trend Values of the success indicators

Objective	Action	Success Indicator	Unit	Actual value for FY 09/10	Actual value for FY 10/11	Target value for FY 11/12	Projected value for FY 12/13	Projected value for FY 13/14
1. To support for research in Bio-informatics for enhancing agricultural production and productivity	Establishment of a new National Agricultural Bio-informatics Grid (NABG) and undertaking collaborative research projects with Institutions under NARS	Initiation of establishment of grid and collaborative research projects	Date	NA	25/03/11	27/03/12	25/03/13	25/03/14
	M.Sc. programme in Bioinformatics	On time initiation of M.Sc. programme	Date	NA	NA	01/10/11	-	-

Objective	Action	Success Indicator	Unit	Actual value for FY 09/10	Actual value for FY 10/11	Target value for FY 11/12	Projected value for FY 12/13	Projected value for FY 13/14
2. To develop efficient methodologies for enhancing the efficiency of agricultural research & production system	Development of efficient designs for agricultural systems research	Efficient designs for 2 colour microarray single factor and multi-factor experiments would be prepared	Number	2	2	1	-	-
	Support to 3 AICRPs in planning and designing of experiments and analysis of experimental data	Number of experimental trials analysed	Number	60	60	50	60	60
	Strengthening web resources on design of experiments, service oriented computing and macros for customized analysis	Adding one new link/ existing one updated/developing two new macros	Number	2	3	2	2	2

Objective	Action	Success Indicator	Unit	Actual value for FY 09/10	Actual value for FY 10/11	Target value for FY 11/12	Projected value for FY 12/13	Projected value for FY 13/14
	Analytical techniques of experimental data generated from a block design when errors follow t-family of distributions	Methodology development	Date	NA	NA	27/03/12	-	-
3. To develop methodology for precise estimation of important parameters related to agriculture	Development and application of small area estimation techniques in agricultural/ allied surveys	Methodology development and application	Date	25/03/10	25/03/11	27/03/12	25/03/13	25/03/14

Objective	Action	Success Indicator	Unit	Actual value for FY 09/10	Actual value for FY 10/11	Target value for FY 11/12	Projected value for FY 12/13	Projected value for FY 13/14
	Development and application of traditional/remote sensing and GIS based techniques for estimation of parameters in agricultural/allied areas	Methodology development and application	Date	25/03/10	25/03/11	27/03/12	25/03/13	25/03/14
4. To provide ICT activities for enhancing efficiency of the system	Development of IS/DSS/Expert System/Software	IS/ESS/Software	Number	1	1	1	2	2

Objective	Action	Success Indicator	Unit	Actual value for FY 09/10	Actual value for FY 10/11	Target value for FY 11/12	Projected value for FY 12/13	Projected value for FY 13/14
5. To develop modeling and forecasting techniques for biological phenomenon	Development of Pest/disease forewarning models in important crops	Model development and validation	Number	NA	NA	1	2	2
	Development of statistical forecast models in agriculture/fisheries using Non linear time-series analysis, re-sampling and data mining techniques	On-time completion	Date	NA	NA	27/03/12	-	-
6. To impart training for human resources development	Customized and sponsored training programmes	Number of training programmes organized	Number	5	5	4	5	5

Objective	Action	Success Indicator	Unit	Actual value for FY 09/10	Actual value for FY 10/11	Target value for FY 11/12	Projected value for FY 12/13	Projected value for FY 13/14
Efficient functioning of the RFD system *	Timely submission of draft for approval	On-time submission	Date	-	-	14/06/11	-	-
	Timely submission of results	On-time submission	Date	-	-	03/05/12	-	-
	Finalize a strategic plan for next five year plan	Timely initiation of activity	Date	-	-	15/12/11	-	-

Objective	Action	Success Indicator	Unit	Actual value for FY 09/10	Actual value for FY 10/11	Target value for FY 11/12	Projected value for FY 12/13	Projected value for FY 13/14
	Identify potential areas of corruption related to organization activity and develop an action plan to mitigate them	Timely initiation of activity for implementation	Date	-	-	15/12/11	-	-
Implementation of Sevottam	Create a Sevottam compliant system to implement, monitor and review citizen's charter	Timely creation	Date	-	-	15/12/11	-	-
	Create a Sevottam compliant system to redress and monitor public grievances	Timely creation	Date	-	-	15/12/11	-	-

* Mandatory Objective

NA: Not Applicable

- : Implies programme completed / No target value for the current year

SECTION 4:

Description and Definition of Success Indicators and Proposed Measurement Methodology

Objective-1

With respect to support for research in Bio-informatics for enhancing agricultural production and productivity, it is proposed to initiate the establishment of National Agricultural Bio-informatics Grid (NABG). This activity is expected to be completed by 31st March, 2012. Besides, M.Sc. programme in Bio-informatics shall be strengthened.

Objective-2

Under this head, it is proposed to develop efficient designs for agricultural and information systems. Besides, support to 3 AICRPs will be provided by way of planning and designing of experiments and analysis of experimental data and also service oriented computing modules for combined analysis of block designs will be implemented. Further, macros for split plot designs and augmented designs would be developed and the link on supersaturated designs on design resources server would be updated. Analytical techniques of experimental data generated from a block design when errors follow t-family of distributions.

Objective-3

Established survey sampling techniques like small area estimation technique shall be applied on the available data for estimation of various poverty related parameters at district level. Appropriate methodology shall be developed for estimation of cotton production estimation based on a few pickings.

Objective-4

ICT activities for enhancing efficiency of the system will be achieved through development of information system/decision support system/expert system, development of web enabled Statistical Package for Agricultural Research (SPAR 3.0).

Objective-5

Under this objective pest/disease forewarning models in onion and mango shall be developed. Besides, forecasting technological needs in the fisheries sub-domain shall be proposed.

Objective-6

Human resources development shall be achieved through up-gradation of skills of in-service candidates by organizing customized training programmes.

SECTION 5:

Specific Performance Requirements from other Departments

1. Timely clearance of all tender documents related to Works, infrastructure development is needed from various departments, CPWD, World Bank etc.
2. Feedback from the user organization will help in fine tuning the various models and training programmes.

SECTION 6:**Outcome / Impact of activities of organisation ministry**

Outcome / Impact of organisation /RCs	Jointly responsible for influencing this outcome / impact with the following organisation (s) / departments/ministry(ies)	Success Indicator (s)	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014
1. Improving the status of usage of statistical computing techniques in NARS	ICAR Institutes/ SAUs/AICRPs	Catalogues of efficient designs/ analytical techniques/ sampling methodologies/ forecasting/ modeling/ quantitative genetics/ statistical genomic tools	2	3	3	3	3
2. Enhancing efficiency of the system through ICT	Post Graduate School of IARI, New Delhi. Directorate of Maize Research, New Delhi	Increased percentage accessibility of information	5	5	5	5	5
3. Human resources development	Various ICAR Institutes, State Govt. Officials in Directorate of Economics and Statistics and Ministry of Statistics and Programme Implementation	Number of quality personnel trained	100	100	100	100	100