



Results-Framework Document (RFD)
for
ICAR- Central Rice Research Institute
(2014-2015)

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Website ID: <http://www.crrri.nic.in>

Section 1: Vision, Mission, Objectives and Functions

Vision

Food and nutritional security through sustainable rice production.

Mission

To develop and disseminate eco-friendly rice production technologies for enhancing productivity and profitability of rice cultivation in all agro-climatic situations.

Objectives

1. Genetic enhancement and development of improved cultivars
2. Development and identification of appropriate crop production and protection technologies
3. Technology dissemination and capacity building

Functions

- Conduct basic, applied and adaptive research on crop improvement and resource management for increasing and stabilizing rice productivity in different rice ecosystems with special emphasis on rainfed ecosystems and the related abiotic stresses.
- Generation of appropriate technology through applied research for increasing and sustaining productivity and income from rice and rice-based cropping/farming systems in all the ecosystems in view of decline in per capita availability of land.
- Collection, evaluation, conservation and exchange of rice germplasm and distribution of improved plant materials to different national and regional research centres.
- Development of technology for integrated pest, disease and nutrient management for various farming situations.
- Characterization of rice environment in the country and evaluation of physical, biological, socioeconomic and institutional constraints to rice production under different agro-ecological conditions and in farmers' situations and develop remedial measures for their amelioration.
- Maintain database on rice ecology, ecosystems, farming situations and comprehensive rice statistics for the country as a whole in relation to their potential productivity and profitability.
- Impart training to rice research workers, trainers and subject matter/extension specialists on improved rice production and rice-based cropping and farming systems.
- Collect and maintain information on all aspects of rice and rice-based cropping and farming systems in the country.

Section 2: *Inter-se* priorities among Key Objectives, Success Indicators and Targets

| Sl. No. | Objectives | Weight | Actions | Success Indicators | Unit | Weight | Target / Criteria Value | | | | |
|---------|---|--------|--|---|-----------|--------|-------------------------|-----|-----|-----|-----|
| | | | | | | | 100% | 90% | 80% | 70% | 60% |
| 1 | Genetic enhancement and development of improved cultivars | 62 | Evaluation of genetic material | Breeding and germplasm lines evaluated | Number | 17 | 672 | 560 | 448 | 336 | 224 |
| | | | | Lines identified for unique traits | Number | 5 | 6 | 5 | 4 | 3 | 2 |
| | | | Development of improved cultivars | Entries contributed for AICRIP multi-location trial | Number | 15 | 110 | 92 | 74 | 56 | 38 |
| | | | | Varieties identified for release | Number | 5 | 4 | 3 | 2 | 1 | 0 |
| | | | Seed production programme | Breeder seed produced | Weight MT | 15 | 54 | 45 | 36 | 27 | 18 |
| | | | | Truthfully labeled seed produced | Weight MT | 5 | 66 | 55 | 44 | 33 | 22 |
| 2 | Development and identification of appropriate crop production & protection technologies | 10 | Development and testing of new technologies | New technologies identified & tested | Number | 10 | 6 ^{\$} | 5 | 4 | 3 | 2 |
| 3 | Technology dissemination and capacity building | 8 | Demonstrations conducted | Front line demonstrations conducted | Number | 4 | 22 | 18 | 14 | 10 | 6 |
| | | | Farmers/ Extension officials training programmes organized | Trainings organized | Number | 4 | 12 | 10 | 8 | 6 | 4 |

| | | | | | | | | | | | |
|---|--|---|--|--|------|---|--------------|--------------|--------------|--------------|--------------|
| * | Publication/Documentation | 5 | Publication of the research articles in the journals having the NAAS rating of 6.0 and above | Research articles published | No. | 3 | 42 | 35 | 28 | 21 | 14 |
| | | | Timely publication of the Institute Annual Report (2013-2014) | Annual Report published | Date | 2 | 30.06.2014 | 02.07.2014 | 04.07.2014 | 07.07.2014 | 09.07.2014 |
| * | Fiscal resource management | 2 | Utilization of released plan fund | Plan fund utilized | % | 2 | 98 | 96 | 94 | 92 | 90 |
| * | Efficient Functioning of the RFD System | 3 | Timely submission of Draft RFD for 2014-2015 for Approval | On-time submission | Date | 2 | May 15, 2014 | May 16, 2014 | May 19, 2014 | May 20, 2014 | May 21, 2014 |
| | | | Timely submission of Results for 2013-2014 | On-time submission | Date | 1 | May 1 2014 | May 2 2014 | May 5 2014 | May 6 2014 | May 7 2014 |
| * | Enhanced Transparency / Improved Service delivery of Ministry/Department | 3 | Rating from Independent Audit of implementation of Citizens' / Clients' Charter (CCC) | Degree of implementation of commitments in CCC | % | 2 | 100 | 95 | 90 | 85 | 80 |
| | | | Independent Audit of implementation of Grievance Redress Management (GRM) system | Degree of success in implementing GRM | % | 1 | 100 | 95 | 90 | 85 | 80 |

| | | | | | | | | | | | |
|---|------------------------|---|---|---------------------|------|---|------------|------------|------------|------------|------------|
| * | Administrative Reforms | 7 | Update organizational strategy to align with revised priorities | Date | Date | 2 | Nov.1 2014 | Nov.2 2014 | Nov.3 2014 | Nov.4 2014 | Nov.5 2014 |
| | | | Implementation of agreed milestones of approved Mitigating Strategies for Reduction of potential risk of corruption (MSC) | % of implementation | % | 1 | 100 | 90 | 80 | 70 | 60 |
| | | | Implementation of agreed milestones for ISO 9001 | % of implementation | % | 2 | 100 | 95 | 90 | 85 | 80 |
| | | | Implementation of milestones of approved Innovation Action Plans (IAPs) | % of implementation | % | 2 | 100 | 90 | 80 | 70 | 60 |

As per the DAC indent received

\$ Reduction in target due to depleting scientific and technical manpower

† As per sponsorship received

Section 3: Trend Values of the Success Indicators

| Sl. No. | Objectives | Actions | Success indicators | Unit | Actual value for FY 2012-2013 | Actual value for FY 2013-2014 | Target value for FY2014-2015 | Projected values for FY2015-2016 | Projected values for FY 2016-2017 |
|---------|---|--|---|-----------|-------------------------------|-------------------------------|------------------------------|----------------------------------|-----------------------------------|
| 1 | Genetic enhancement and development of improved cultivars | Evaluation of genetic material | Breeding and germplasm lines evaluated | Number | 2470* | 873 | 560 | 600 | 650 |
| | | | Lines identified for unique traits | Number | 5 | 6 | 5 | 7 | 8 |
| | | Development of improved cultivars | Entries contributed for AICRIP multi-location trial | Number | 225 | 118 | 92 | 94 | 100 |
| | | | Varieties identified for release | Number | 2 | 7 | 3 | 2 | 2 |
| | | Seed production programme | Breeder seed produced | Weight MT | 45 | 60.3 | 45 | 47 | 50 |
| | | | Truthfully labeled seed produced | Weight MT | 42.8 | 70 ^s | 55 | 59 | 62 |
| 2 | Development and identification of appropriate crop production & protection technologies | Development and testing of new technologies | New technologies identified & tested | Number | 8 | 10 | 5 | 5 | 6 |
| 3 | Technology dissemination and capacity building | Demonstrations conducted | Front line demonstrations conducted | Number | 19 | 30 | 18 | 20 | 21 |
| | | Farmers/ Extension officials training programmes organized | Trainings organized | Number | 9 | 18 | 10 | 11 | 12 |
| * | Publication/Documentation | Publication of the research articles in the journals having the NAAS rating of 6.0 and above | Research articles published | No. | 34 | 59 | 35 | 40 | 44 |

| | | | | | | | | | |
|---|--|---|--|------|-----|-----|--------------|----|----|
| | | Timely publication of the Institute Annual Report (2013-2014) | Annual Report published | Date | - | - | 02.07.2014 | - | - |
| * | Fiscal resource management | Utilization of released plan fund | Plan fund utilized | % | 100 | 100 | 96 | 96 | 96 |
| * | Efficient Functioning of the RFD System | Timely submission of Draft RFD for 2014-2015 for Approval | On-time submission | Date | - | - | May 16, 2014 | - | - |
| | | Timely submission of Results for 2013-2014 | On-time submission | Date | - | - | May 2, 2014 | - | - |
| * | Enhanced Transparency / Improved Service delivery of Ministry/Department | Rating from Independent Audit of implementation of Citizens' / Clients' Charter (CCC) | Degree of implementation of commitments in CCC | % | - | - | 95 | - | - |
| | | Independent Audit of implementation of Grievance Redress Management (GRM) system | Degree of success in implementing GRM | % | - | - | 95 | - | - |
| * | Administrative Reforms | Update organizational strategy to align with revised priorities | Date | Date | - | - | Nov.2, 2014 | - | - |
| | | Implementation of agreed milestones of approved Mitigating Strategies for Reduction of potential risk of corruption (MSC) | % of implementation | % | - | - | 90 | - | - |
| | | Implementation of agreed milestones for ISO 9001 | % of implementation | % | - | - | 95 | - | - |
| | | Implementation of milestones of approved Innovation Action Plans (IAPs) | % of implementation | % | - | - | 90 | - | - |

* Higher achievement due to evaluation of more number of germplasms under the project EAP 172 in collaboration with NBPGR and NICRA project

\$ Higher production due to participatory seed production in farmers' fields

Section 4(a): Acronyms

| S. No. | Acronym | Description |
|---------------|----------------|--|
| 1 | AICRIP | All India Coordinated Rice Improvement Project |
| 2 | DAC | Department of Agriculture and Cooperation |
| 3 | MT | Metric Tonne |
| 4 | NGO | Non Government Organization |
| 5 | CRRRI | Central Rice Research Institute |
| 6 | ICAR | Indian Council of Agricultural Research |

Section 4(b): Description and definition of success indicators and proposed measurement methodology

| S. No. | Success Indicators | Description | Definition | Measurement | General comments |
|---------------|---|--|---|--|---|
| 1 | Breeding and germplasm lines evaluated | Germplasm which is source for improved varieties and newly developed breeding lines to be evaluated | Germplasm is a collection of genetic resources for rice | Number of germplasm and breeding lines evaluated | |
| 2 | Lines identified for unique traits | Lines with unique traits to be identified from the germplasm | Germplasm lines with very specific characteristics are to be identified | Number | This will help in identification of lines useful for improving specific economic traits |
| 3 | Entries contributed for AICRIP multi-location trial | Breeding lines developed through various projects are nominated for different trials of AICRIP to know their performance over locations | Breeding lines nominated by the Institute for multi-location trials of AICRIP | Number | No. of entries will depend on performance in on-station trial |
| 4 | Varieties identified for release | Breeding lines tested along with checks in multi-location trials through All India Coordinated Research Projects and the best performing entries compared to checks are identified as new improved varieties for release | Best performing entries identified as a new variety for release | Number of such varieties identified | Targets for varieties identified given in Section 2 and their respective trend values in Section 3 may vary as the identification of varieties depend upon the availability of superior material with respect to yield, biotic and abiotic resistance/tolerance over the existing varieties |

| | | | | | |
|---|--------------------------------------|---|--|------------------------|--|
| 5 | Breeder seed produced | Produce from nucleus and breeder seed is the starting point in seed chain of producing quality seeds for farmers | Breeder seed is the starting point in seed chain which is multiplied/converted in to foundation /certified seed | Quantity produced (MT) | Quantity may vary as per indent from DAC |
| 6 | Truthfully labeled seed produced | Truthfully labeled seed is produced at the Institute for supplying quality seeds of popular varieties to farmers | Truthfully labeled seed is the progeny of foundation, certified or labeled seed | Quantity produced (MT) | Quantity will depend on farmers' demand for quality seed |
| 7 | New technologies identified & tested | New crop production & protection technologies for rice to be identified and tested to achieve profitable and higher rice production | Production technologies help in increasing production of rice, improving soil health and reducing cost of cultivation. Protection technologies help in economic control of diseases and insect-pests of rice | Number | |
| 8 | Front line demonstrations conducted | Front line demonstrations are conducted for technology testing in the farmers conditions | Frontline demonstration is the field demonstration conducted on farmers field under the close supervision of scientists | Number | |
| 9 | Trainings organized | Capacity building activities related to rice knowledge and skill improvement/development programmes conducted for extension personnel and progressive farmers | Training is a process of acquisition of new skills, attitude and knowledge in the context of preparing for entry into a vocation or improving productivity in an organization or enterprise | Number | Number of trainings depends on sponsorship received |

Section 5: Specific performance requirements from other departments that are critical for delivering agreed results

| Location Type | State | Organisation Type | Organisation Name | Relevant Success Indicator | What is your requirement from this organisation | Justification for this requirement | Please quantify your requirement from this Organisation | What happens if your requirement is not met |
|-------------------------------|-----------------------------------|------------------------|---|-------------------------------------|---|--------------------------------------|---|---|
| Central and State Governments | States with AICRIP centres | ICAR, State Department | AICRIP and State Agricultural Departments | Varieties identified for release | Multi-location testing of breeding lines | Co-ordinating multi location testing | No. of breeding lines tested | Less nos. of varieties will be identified for release |
| Central and State Governments | States indenting for breeder seed | Departments | DAC, State Agricultural Departments | Breeder seed produced | Indent for quantity of breeder seed | Variety wise indent for breeder seed | Quantity of breeder seed produced as per the indent | Less quantity of breeder seed will be produced |
| Central Government | | Departments | DAC | Front line demonstrations conducted | Funding and indent | For conducting demonstrations | Funding as per the indent | Less nos. of demonstrations will be conducted |
| Central and State Governments | All rice growing states | Departments | DAC and other funding agencies | Trainings organized | Funding and indent | For organizing trainings | Funding as per the indent | Less nos. of trainings will be organized |

Section 6: Outcome / Impact of activities of Department / Ministry

| S. No. | Outcome/Impact | Jointly responsible for influencing this outcome/impact with the following organization(s)/department (s)/ministry(ies) | Success indicator(s) | Unit | 2012-2013 | 2013-2014 | 2014-2015 | 2015-2016 | 2016-2017 |
|--------|---|---|---------------------------------|---------|-----------|-----------|-----------|-----------|-----------|
| 1 | Acceptance and popularity of CRR1 varieties as evidenced by sale of quality seeds | DAC, State Agriculture Departments, NGOs and farmers | Demand for breeder & TL seeds | MT | 87.8 | 130.3 | 110.0 | 115.0 | 120.0 |
| 2 | Enhanced rice productivity | DAC, Ministry of Rural Development, State Agriculture Departments and NGOs | Increase in productivity | Percent | 1.8 | 2.0 | 2.25 | 2.5 | 2.5 |
| 3 | Enhancement in export of rice | Ministry of Commerce and Export houses | Increase in export [#] | Percent | 41.4* | 7.33 | 7.0 | 8.0 | 8.0 |

Calculation based on data available in APEDA website.

* Higher value in 2012-13 is due to more increase in export of non-basmati rice over the previous year. Earlier in 2010-11, there was a ban on non-basmati rice export and non-basmati export picked up slowly in 2011-12.