



Results-Framework Document (RFD)

for

ICAR Research Complex for NEH Region (2013-2014)

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Section 1: Vision, Mission, Objectives and Functions

Vision

Agricultural research of excellence to ensure food, nutrition and livelihood security in the North-eastern hill region.

Mission

Enhancing agricultural productivity through development of cutting edge technology, efficient technology dissemination, entrepreneurship and human resource development.

Objectives

- To improve production and productivity of hill agriculture through technological interventions
- Building awareness, technology transfer, and distribution of inputs, consultancy and human resource development.
- To serve as a regional repository of information in the field of agriculture and allied sectors through efficient knowledge management.

Functions

1. Generation, evaluation and demonstration of technology for location specific farming systems and landuse practices in the changing face of agriculture.
2. Plan, coordinate, implement and monitor R&D programme for sustainable agricultural production, resource conservation and vertical expansion.
3. Development of process/technology in the field of agriculture, horticulture, forestry, animal husbandry and fisheries in changing climatic scenario.
4. Farm mechanization to suit hill agriculture, post harvest processing and value addition.
5. Bio-prospecting and protection of knowledge and bio-resources through IPR mechanism.
6. Agro- advisory services through modern information and communication technology.
7. Exploring and implementing secondary and specialty agriculture for entrepreneurship development.
8. Technology commercialization and popularization entrepreneurship development through PPP mode.
9. Teaching, student guiding, trainings for capacity building
10. Consultancy/transfer of technology
11. Publications and regional repository of information in the field of agriculture and allied sectors.
12. Linkages/collaboration with local, national and international organizations.

Section 2: Inter se priorities among key objectives, success indicators and targets

| S.No | Objectives | Weight | Actions | Success indicators | Unit | Weight | Target/Criteria value | | | | | |
|------|---|--------|---|---|--|--------|-----------------------|-----------|--------|-------|-------|------|
| | | | | | | | Excellent | Very good | Good | Fare | Poor | |
| | | | | | | | 100% | 90% | 80% | 70% | 60% | |
| 1 | To improve production and productivity of hill agriculture through technological interventions | 47 | Integrated farming system and natural resource conservation in hill agriculture | <i>Jhum</i> land developed and restored through integrated farming systems including natural resource conservation technology | Area (ha) | 20 | 200 | 150 | 100 | 50 | 0 | |
| | | | Nutrient /water/pest/disease management | Technologies for nutrient/water/ pest/ disease management developed | Number | 15 | 4 | 3 | 2 | 1 | 0 | |
| | | | Developing new/superior varieties/breed/technology | New/ superior varieties/breed/technology developed | Number | 12 | 4 | 3 | 2 | 1 | 0 | |
| 2 | Building awareness, technology transfer, distribution of inputs, consultancy and human resource development | 30 | Production of breeder seeds/certified seeds/saplings/animals/chicks/fingerlings/farm tools and implements | Breeder/certified seeds produced | Tonnes | 04 | 25 | 20 | 15 | 10 | 5 | |
| | | | | Quality planting materials produced | Number | 04 | 250000 | 200000 | 100000 | 50000 | 25000 | |
| | | | | Piglets, chicks, kids, fingerlings etc produced | Number | 04 | 200000 | 150000 | 100000 | 50000 | 25000 | |
| | | | | Improved farm tools and implements produced | Number | 02 | 200 | 150 | 100 | 50 | 0 | |
| | | | | Capacity building of stakeholders/training | Farmers benefited from training/ capacity building of farmers/other stakeholders | Number | 12 | 10000 | 8000 | 5000 | 3000 | 1000 |
| | | | | Frontline demonstrations/OFTs conducted | Number | 04 | 40 | 30 | 20 | 10 | 5 | |
| 3 | To serve as a regional | 12 | Agro-advisory services | Meteorological advisory bulletin issued | Number | 08 | 500 | 400 | 350 | 300 | 250 | |

| | | | | | | | | | | | |
|--|---|---|---|--|--------|------|--------------|---------------|---------------|---------------|----------------|
| | repository of information in the field of agriculture and allied sectors through efficient knowledge management | | Agricultural and allied sectors databases | Online knowledge information repository in agriculture for Northeast (KIRAN) updated | Number | 04 | 15 | 14 | 12 | 10 | 08 |
| | Efficient Functioning of the RFD System | 3 | Timely submission of Draft RFD (2013-14) for approval | On-time submission | Date | 2.00 | May 15, 2013 | May 16, 2013 | May 17, 2013 | May 20, 2013 | May 21, 2013 |
| | | | Timely submission of Results for RFD (2012-13) | On-time submission | Date | 1.00 | May 1 2013 | May 2 2013 | May 5 2013 | May 6, 2013 | May 7, 2013 |
| | Administrative Reforms | 4 | Implement ISO 9001 as per the approved action plan | % Implementation | % | 2.00 | 100 | 95 | 90 | 85 | 80 |
| | | | Prepare an action plan for Innovation | On-time submission | Date | 2.00 | Jul 30, 2013 | Aug. 10, 2013 | Aug. 20, 2013 | Aug. 30, 2013 | Sept. 10, 2013 |
| | Improving internal efficiency /responsiveness / service delivery of Ministry / Department | 4 | Implementation of Sevottam | Independent Audit of Implementation of Citizen's Charter | % | 2.00 | 100 | 95 | 90 | 85 | 80 |
| | | | | Independent Audit of implementation of public grievance redressal system | % | 2.00 | 100 | 95 | 90 | 85 | 80 |

Section 3: Trend Values of the Success Indicators

| Sl. No. | Objectives | Actions | Success Indicators | Unit | Actual Value for FY 11/12 | Actual Value for FY 12/13 | Target Value for FY 13/14 | Projected Value for FY 14/15 | Projected Value for FY 15/16 |
|---------|--|---|---|-----------|---------------------------|---------------------------|---------------------------|------------------------------|------------------------------|
| 1. | To improve production and productivity of hill agriculture through technological interventions | Integrated farming system and natural resource conservation in hill agriculture | <i>Jhum</i> land developed and restored through integrated farming systems including natural resource conservation technology | Area (ha) | 120 | 130 | 150 | 160 | 175 |
| | | Nutrient /water/pest/disease management | Technologies for nutrient/water/pest/disease management developed | No. | 2 | 3 | 3 | 3 | 3 |
| | | Developing new/superior varieties/breed/technology | New/ superior varieties/breed/technology developed | No. | 2 | 3 | 3 | 3 | 3 |
| 2. | Building awareness, technology transfer, and distribution of inputs, consultancy and human resource development in agriculture | Production of breeder seeds/certified seeds/saplings/animals/chicks/fingerlings/farm tools and implements | Breeder/certified seeds produced | Tonnes | 8 | 10 | 20 | 10 | 12 |
| | | | Quality planting materials produced | No. | 180000 | 200000 | 200000 | 210000 | 225000 |
| | | | Piglets, chicks, kids, fingerlings etc produced | No. | 100000 | 125000 | 150000 | 150000 | 160000 |
| | | | Improved farm tools and implements produced | No. | 145 | 145 | 150 | 150 | 160 |
| | | Capacity building of stakeholders/ training | Farmers benefited from training/ capacity building of farmers/ other stakeholders | No. | 8000 | 8500 | 8000 | 8500 | 8500 |
| | | | Frontline demonstrations/OFTs conducted | No. | 22 | 26 | 30 | 30 | 35 |
| 3. | To serve as a regional repository of information in the | Agro-advisory services | Meteorological advisory bulletin issued | No. | 480 | 516 | 400 | 400 | 400 |
| | | Agricultural and allied | Online knowledge | No. | 0 | 6 | 14 | 15 | 20 |

| | | | | | | | | | |
|--|---|---|--|------|---|---|---------------|---|---|
| | field of agriculture and allied sectors through efficient knowledge management. | sectors databases | information repository in agriculture for Northeast (KIRAN) updated | | | | | | |
| | Efficient Functioning of the RFD System | Timely submission of Draft RFD (2013-14) for approval | On-time submission | Date | - | - | May 16, 2013 | - | - |
| | | Timely submission of Results for RFD (2012-13) | On-time submission | Date | - | - | May 2 2013 | - | - |
| | Administrative Reforms | Implement ISO 9001 as per the approved action plan | % Implementation | % | - | - | 95 | - | - |
| | | Prepare an action plan for Innovation | On-time submission | Date | - | - | Aug. 10, 2013 | - | - |
| | Improving internal efficiency /responsiveness / service delivery of Ministry / Department | Implementation of Sevottam | Independent Audit of Implementation of Citizen's Charter | % | - | - | 95 | - | - |
| | | | Independent Audit of implementation of public grievance redressal system | % | - | - | 95 | - | - |

Section 4 : Acronyms

| S. No. | Acronym | Description |
|---------------|----------------|--|
| 1. | OFT | On Farm Trial |
| 2. | KIRAN | Knowledge Repository for Agriculture in North East India |
| 3. | NEC | North East Council |
| 4. | NGOs | Non-Governmental Organizations |
| 5. | AAU | Assam Agricultural University |
| 6. | CAU | Central Agricultural University |
| 7. | NHB | National Horticulture Board |
| 8. | NABARD | National Bank for Agriculture and Rural Development |
| 9. | R&D | Research and Development |
| 10. | PPP | Public-private partnership |
| 11. | IPR | Intellectual property rights |

Section 4: Description and Definition of Success Indicators and Proposed Measurement Methodology

| S. No. | Success indicator | Description | Definition | Measurement | General Comments |
|--------|---|---|--|--|---|
| 1 | <i>Jhum</i> land developed and restored through integrated farming systems including natural resource conservation technology | <i>Jhum</i> cultivation is widely prevalent agricultural practice in Northeast India which poses greatest challenge for environment and forest in the region. | Efficient use of natural resources to improve production and productivity of hill agriculture can be achieved by improvement of the <i>jhum</i> (slash and burn agriculture) land through integrated farming systems including natural resource conservation technology. | Reduce in <i>Jhum</i> area in hectares | Improvement of <i>Jhum</i> cultivation for enhancement of agricultural productivity and sustainability of resources |
| 2 | Technologies for nutrient/water/pest/disease management developed | Nutrient/water/pest/disease are the key components in crop production. These four major factors possess various biotic and abiotics stresses for the growth of plants. | Developing suitable technology for improving efficiency of nutrient and water uptake by plant for enhanced crop yield. Pest and disease are major biotic stresses for crop production and developing eco-friendly technology will address problem of pest and disease. | Number of technology developed | - |
| 3 | New/superior varieties/breed/technology developed | Development of improved (abiotic and biotic stress tolerant, high yielding, nutritionally rich) varieties/breeds of crops, livestock, fishery and new technology etc helps in achieving self-sufficiency in food production in Northeast hill states. | Improved entries/ technology suitable for increasing agricultural productivity in Northeast region | Number of such varieties/technology identified | - |

| | | | | | |
|---|---|---|--|--|--|
| 4 | Breeder /certified seeds 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 in to foundation / certified seed | Quantity produced (quintals) | Quantity may vary as per the demand by various agencies |
| 5 | Quality planting materials produced | In a simpler sense, planting material arise from vegetative propagation including cutting, vegetative apomixes, layering, division, budding, grafting and tissue culture is true to the type and ensures quality. | It is a process of vegetative means by which new individuals true to the type arise without production of seeds or spores. | Number of saplings/ plants (in lakhs) | |
| 6 | Piglets, chicks, kids, fingerlings etc produced | In Northeast India majority of the population are non-vegetarian and the region is deficient in production. Consequently the availability of quality piglets, chicks, kids, fingerlings etc. will boost animal husbandry and fisheries sector | Production of piglets, chicks, kids, fingerlings etc from various superior animals and fishes resources. | Number of piglets chicks, kids, fingerlings (in lakhs) | |
| 7 | Improved farm tools and implements produced | Production of improved farm tools and implements with the help of skilled manpower | Ergonomically farm tools and implements which reduce drudgery and time of operation | Number | - |
| 8 | Farmers benefited from training/ capacity building of farmers/ other stakeholders | The knowledge and skills of primary and secondary stakeholders shall be enhanced by organizing training conducted by various experts/resource persons | Increase awareness and understanding of various stakeholders | Number of programmes | Knowledge and skill enhancement of primary and secondary stakeholders. |
| 9 | Frontline demonstrations/OFTs conducted | Frontline and on farm trials demonstrations aimed for knowledge and skill enhancement | Frontline and on farm trials demonstrations of successful and superior technology | Number | |

| | | | | | |
|----|--|--|---|-----------------------------------|--|
| | | of various stakeholders. | | | |
| 10 | Meteorological advisory bulletin issued | To provide short term advance information about weather in order to support crop production and mitigate abiotic and biotic stresses. | Crop advisory information through various meteorological inputs | Number of weather advisory issued | Weather data generation through in-house, regional and national grid. |
| 11 | Online knowledge information repository in agriculture for Northeast (KIRAN) updated | Creating and generating various agricultural and allied information through website: www.kiran.nic.in for various stakeholders | Web publication of agricultural and allied information in the Northeast India in order to enhance knowledge and productivity of agriculture | Number of updatings | Creating a common platform for agricultural information for effective and speedy dissemination of knowledge. |

Section 5: Specific performance requirements from other departments

| Location Type | State | Organization Type | Organization Name | Relevant Success Indicator | What is your requirement from this organization | Justification for this requirement | Please quantify your requirement from this organization | What happens if your requirement is not met |
|---------------|-------|-------------------|-------------------|----------------------------|---|------------------------------------|---|---|
| Nil | Nil | Nil | Nil | Nil | Nil | Nil | Nil | Nil |

Section 6: Outcome/impact of activities of organization/ ministry

| S. No. | Outcome/impact of organization/ RC's | Jointly responsible for influencing the outcome /impact with the following organization (s)/ departments/ ministry | Success Indicators | Unit | 2011-2012 | 2012-2013 | 2013-2014 | 2014-2015 | 2015-2016 |
|--------|--|--|---|------|-----------|-----------|-----------|-----------|-----------|
| 1 | Reduced <i>Jhum</i> (shifting cultivation) area in Northeast states of India | Line departments of state governments , NEC, NGOs, Missionaries etc. | Increase in settled cultivation land in Northeast states of India | % | 2 | 2 | 2 | 2 | 2 |
| 2 | Enhanced agriculture production | AAU, CAU, Line departments of state governments, NEC,NHB, NEC,NABARD,NGOs etc. | Increase in agriculture productivity | % | 2 | 2 | 2 | 2 | 2 |