



RFD

Results-Framework Document

For

**Sardar Swaran Singh National Institute of Renewable Energy,
Kapurthala-144601 (Punjab)**

(An Autonomous Institution of Ministry of New & Renewable Energy, Govt. of India, New Delhi)

(2012-2013)

SECTION 1:

Vision, Mission, Objectives and Functions

VISION:

- To establish the Institute as an apex R&D institution for carrying out **state-of-the-art** research and developmental activities in the area of bio-energy, including human resource development at all levels, post-doctoral research and research leading to commercialization of renewable energy technologies.

MISSION:

- To be a knowledge based R&D Institution of high quality and dedication.
- Providing services and seeks to find optimum solutions for the major stakeholders across the entire spectrum of the bio-energy sector.
- To support the Rural Energy sector in developing the knowledge for promoting new technology.

OBJECTIVES:

- To carry out and facilitate research, design, development, testing, standardization and technology demonstration eventually leading to commercialization of RD&D output with a focus on:
 - a. Bioenergy, biofuels and synthetic fuels in solid, liquid and gaseous forms for transportation, portable and stationary applications; and
 - b. Development of hybrid/integrated energy systems;
- To undertake and facilitate human resource development and training including post-doctoral research in the area of bioenergy.
- To create facilities for operationalization of the Institute.

FUNCTIONS:

- Conduct resource surveys and Assessment of potential across the country in the bioenergy sector.
- In-house R&D programmes in all emerging fields of bioenergy.
- Joint technical programmes with other national institutions and testing centres.
- Testing and certification of devices and systems.
- Techno-economic evaluation of bioenergy equipments and systems.
- Creating data base for bioenergy including information on patents.
- Compilation and dissemination of information on resources, technologies, products and applications.
- Providing technical support to industry on new product design and development and upgradation of products and manufacturing processes.
- Providing technical support to the biomass energy project in achieving and sustaining quality such that systems of highest quality and reliability are installed.
- Organization of training programmes, seminars and workshops.
- Cooperation with scientific and technical Institutions abroad under bilateral and multilateral agreements and MoU.
- Assistance in curriculum development in renewable energy and undertaking concrete programmes for human resource development.
- Consultancy and advisory services in the bioenergy sector.
- Providing technical support to MNRE in policy planning and implementation.

SECTION 2:

Inter se Priorities among Key Objectives, Success indicators and Targets

S. No.	Objective	Weight	Actions	Success indicator	Unit	Weight	Target/Criteria Value				
							Excellent	Very Good	Good	Fair	Poor
							100%	90%	80%	70%	60%
1	To carry out and facilitate research, design, development, testing, standardization and technology demonstration eventually leading to commercialization of RD&D output with a focus on: a. Bioenergy, biofuels and synthetic fuels in solid, liquid and gaseous forms for transportation, portable and stationary applications; and b. Development of hybrid/integrated energy systems	60	Ongoing R&D projects	3	No. of projects	10	3	2	1	-	-
			Formulation of R&D projects	3	No. of projects	10	3	2	1	-	-
			Setting up R&D-cum-Technology Demonstration plants	2	Nos.	10	2	1	-	-	-
			Research paper/ Book chapter/ Book Publications	5	Nos.	10	5	4	3	2	1
			Testing facility for gaseous and liquid biofuels	2	Nos.	10	2	1	-	-	-
			Taking-up plantation of Bio-energy trees/plants/crops	1,000	No. of plants	10	1,000	900	800	700	600
						60					
2	To undertake and facilitate human resource development and training including post-doctoral research in the area of bioenergy.	15	Human resource development	10	Nos.	5	10	8	6	4	2
			Obtaining persons through outsourcing for carrying out R&D and other activities to assist 10 sanctioned posts of the Institute	20	Nos.	5	20	18	16	14	12
			Organization of seminar & workshops and training programmes	5	Nos.	5	5	4	3	2	1
						15					

S. No.	Objective	Weight	Actions	Success indicator	Unit	Weight	Target/Criteria Value				
							Excellent	Very Good	Good	Fair	Poor
							100%	90%	80%	70%	60%
3	To create facilities for operationalization of the Institute.	13	Completion of remaining construction and furnishing activities for establishment of the Institute	10	%	2	10	9	8	7	6
			Setting-up of Laboratories facility	20	No. of equipment	5	20	18	16	14	12
			Setting-up of Library facility	100	No. of books & journals	3	100	90	80	70	60
			Setting-up of computer and internet facility	70	%	3	70	60	50	40	30
						13					

Mandatory Success Indicators

Each RFD must contain the following indicators to promote enhanced and sustainable organisational performance levels.

S. No.	Objective	Actions	Success indicator	Unit	Weight	Target/Criteria Value					
						Excellent	Very Good	Good	Fair	Poor	
						100%	90%	80%	70%	60%	
4	Efficient functioning of the RFD System	Timely submission of Draft for approval	On-time submission	Date	2%	April 15, 2012	April 16, 2012	April 17, 2012	April 18, 2012	April 19, 2012	
		Timely submission of Results for 2012-13	On-time submission	Date	1%	May 1, 2013	May 2, 2013	May 3, 2013	May 4, 2013	May 5, 2013	
	Administrative Reforms	Implement ISO 9001	Prepare ISO 9001 action plan	Date	1%	May 1, 2013	May 2, 2013	May 3, 2013	May 4, 2013	May 5, 2013	
			Implementation of ISO 9001 action plan	Date	2%	Mach 25, 2013	Mach 26, 2013	Mach 27, 2013	Mach 28, 2013	Mach 29, 2013	
		Implement mitigating strategies for reducing potential risk of corruption	% of implementation	%	2%	100	95	90	85	80	
	Improving Internal Efficiency/ responsiveness/ service delivery of Ministry/ Department	Implementation of Sevottam	Independent Audit of Implementation of Citizen's Charter	%	2%	100	95	90	85	80	
			Independent Audit of implementation of Public Grievance Redressal System	%	2%	100	95	90	85	80	
	TOTAL WEIGHT					12%					

**SECTION 3:
Trend Values of the Success Indicators**

S. No.	Objective	Actions	Success Indicator	Unit	Actual Value for FY 10/11	Actual Value for FY 11/12	Target value FY 12/13	Projected Value for FY 13/14	Projected Value for FY 14/15
1	To carry out and facilitate research, design, development, testing, standardization and technology demonstration eventually leading to commercialization of RD&D output with a focus on: a. Bioenergy, biofuels and synthetic fuels in solid, liquid and gaseous forms for transportation, portable and stationary applications; and b. Development of hybrid/integrated energy systems	Ongoing R&D projects	3	No. of projects	-	3	3	5	7
		Formulation of R&D projects	3	No. of projects	1	2	3	3	3
		Setting up R&D-cum-Technology Demonstration plants	2	Nos.	-	1	2	2	2
		Research paper/ Book chapter/ Book Publications	5	Nos.	3	4	5	8	10
		Testing facility for gaseous and liquid biofuels	2	Nos.	-	-	2	2	2
		Taking-up plantation of Bio-energy trees/plants/crops	1,000	Nos.	10,000	5,600	1,000	1,000	1,000

S. No.	Objective	Actions	Success Indicator	Unit	Actual Value for FY 10/11	Actual Value for FY 11/12	Target value FY 12/13	Projected Value for FY 13/14	Projected Value for FY 14/15
2	To undertake and facilitate human resource development and training including post-doctoral research in the area of bioenergy.	Human resource development	5	Nos.	1	5	10	15	15
		Obtaining persons through outsourcing for carrying out R&D and other activities to assist 10 sanctioned posts of the Institute	20	Nos.	20	23	25	30	30
		Organization of seminar & workshops and training programmes	5	Nos.	-	2	5	7	7
3	To create facilities for operationalization of the Institute.	To get completed remaining construction and furnishing activities for establishment of the Institute	10	%	40	20	10	-	-
		Setting-up of Laboratories facility	20	No. of equipment	10	52	20	20	20
		Setting-up of Library facility	100	No. of books & journals	100	240	100	100	100
		Setting-up of computer and internet facility	70	%	10	20	70	-	-

SECTION 4:

Description and Definition of Success Indicators and Proposed Measurement Methodology

S.No.	Success Indicator	Definition	Proposed Measurement Methodology
1	Formulation of R&D Projects	Submitted to MNRE and defended for financial sanction	Literature collection & identification of problem and preparation of projects in the format
2	Ongoing R&D Projects	Procurement of Instruments & consumables and appointment of manpower	Generation of results and preparation of progress report
3	Publications	Publication of research articles in Journals and Books	Publication of research work carried out in the Institute
4	Energy plantation	Plantation of various energy plants inside the campus	Plantation of energy plants to get raw materials for energy production and R&D purpose.
5	R&D-cum-Technology Demonstration project	Installation of Demonstration Plants	Installation of Demonstration Plants and its monitoring of its proper functioning
6	Laboratory development	Instruments/equipment procurement	Instruments/equipment procurement as per rule and installation
7	Testing facilities	For testing and performance evaluation of bioenergy devices	Testing facilities for all bioenergy devices are proposed to be developed
8	Training programmes	Training to officers, NGOs and Scientific persons in Biofuel, Bioenergy and biomass based power generation	Dissemination of knowledge and technology through these programmes
9	Research Fellow	Post Doc Fellow/JRF/SRF	Selection of manpower under the various projects/ NRE fellowship
10	Conferences/ workshops	Conference in all the themes of bioenergy	sharing of knowledge through workshops/conferences
11	Library facility	To access the literature at the Institute	Procurement of books and subscription of journals
12	Computer & internet facility	Procurement of computers and other accessories	Procurement of computers and installation of leased line and networking

SECTION 5:
Specific Performance Requirements from other Departments

The performance under various programmes is critically dependent on other Departments/ Organisations as mentioned below:

NOT APPLICABLE

SECTION 6:
Outcome/ Impact of activities of Organization

S. No.	Outcome/ Impact of Organization/ RCs	Jointly responsible for influencing this outcome/ impact with the following Organization(s)/ Departments/ Ministry(ies)	Success Indicator(s)	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015
1	Technology demonstration	SSS-NIRE	2 nos. of technology	--	1	2	2	2
2	Laboratory development	SSS-NIRE	Setting up R&D facility	--	50 %	20 %	10 %	10%
3	Research Publications	SSS-NIRE	5 nos. of Publications	3	4	5	8	10
4	Library and computer facility	SSS-NIRE	Setting up library & internet facility	10 %	30 %	40 %	20 %	--
5	Testing facilities for biomass gasifier, cook stoves, if received	SSS-NIRE	Testing of all received devices	--	100 %	100 %	100 %	100 %
6	Training programmes for stakeholders/ researchers	SSS-NIRE	4 nos. of training programme	--	1	4	5	5
7	Outsourcing of manpower	SSS-NIRE	30 nos. of manpower	20	30	30	30	30
8	Conferences/ workshops	SSS-NIRE	1 no. of conference & workshop	--	1	1	2	2

Place: Kapurthala
Date: March 29, 2012

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