



Results- Framework Document(RFD)

for

INDIAN INSTITUTE OF VEGETABLE RESEARCH

(2012- 2013)

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Results-Framework Document (RFD) of IIVR (2012-13)

Section 1: Vision, Mission, Objectives and Functions

Vision

Vegetables for food & nutritional security and sustainable inclusive growth.

Mission

To contribute significantly to the nutritional security of India through research, education and extension on vegetables in collaboration with national and international partners for enhancing productivity and profitability, achieving sustainable food, and alleviating rural poverty.

Objectives

1. Enhancing productivity and quality of vegetables through varietal improvement.
2. Production management and post harvest & value addition
3. Production of quality breeder seed in vegetable crops.
4. Dissemination of technology
5. Commercialization of Technologies

Functions

- To plan, coordinate, implement and monitor R&D programmes for sustainable vegetable production and resource conservation.

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

Objective	Weight (%)	Actions	Success indicators	Unit	Weight (%)	Target /Criteria Value				
						Excellent	Very Good	Good	Fair	Poor
						100%	90%	80%	70%	60%
Enhancing productivity and quality of vegetables through varietal improvement.	25	Collection and conservation of genetic resources for sustainable use	No. of exploration made	Number	2	6	5	3	2	1
			No. of germplasm / accessions augmented	Number	3	70	60	50	40	30
		Line development	No. of advanced lines selected	Number	3	60	55	50	40	30
		Development and evaluation of new cross combination	No. of crosses developed	Number	4	200	180	150	120	100
		Identification of varieties/ hybrids for release	No. of varieties identified	Number	10	3	2	1	-	-
		Development/and validation of markers for specific traits in vegetables	No. of markers developed/validated	Number	3	5	4	3	2	1
Production management and post harvest & value addition.	40	Development of technologies for enhancing water use efficiency	Technologies developed /tested	Number	5	3	2	1	-	-
		Development of technologies for enhancing nutrient use efficiency	Technologies developed /tested	Number	6	4	3	2	1	0
		Development of IPM technologies	Technologies developed /tested	Number	5	2	1	-	-	-
		Collection of fungal/bacterial pathogens from different agro-ecological zones and their phenotyping.	Collection, characterization, conservation and documentation of fungal/bacterial pathogens	Number	5	50	40	30	20	10
		Isolation of entophytic bacteria from vegetable crops for use against major vegetable diseases	Number of effective beneficial isolates	Number	5	10	7	4	2	-

		Development of diagnostic kit for Fungal/Viral diseases in vegetable	Development of species specific marker for identification of fungal pathogens	Date	3	28/2/13	10/3/13	20/3/13	25/3/13	27/3/13
			Development of virus/strain specific probes for detection of cucurbit viruses	Date	3	28/2/13	10/3/13	20/3/13	25/3/13	27/3/13
		Development of technology for increasing the shelf life and value added processed products	Technology for increasing the shelf life of vegetables developed/tested/validated	Number	4	4	3	1	-	-
			Technology for value added processed vegetables developed/tested/validated	Number	4	5	4	3	-	-
Production of quality breeder seed in vegetable crops	8	Production of breeder seeds in important vegetable crops	Quantity produced	Kg	8	2350	2325	2250	2200	2150
Dissemination of technology.	8	Technology showcasing Training	Training organized	Number	4	25	20	15	10	5
			Demonstration organized	Number	4	60	55	50	45	40
Commercialization of Technologies.	7	Identification of partners and providing technologies for demonstration through MTA	Private partners identified	Number	2	8	5	3	2	1
			Technologies promoted for Licensing	Number	2	50	45	30	20	10
			Technologies Licensed	Number	3	2	1	-	-	-
Efficient functioning of the RFD system	03	Timely submission of RFD for 2012-13	On-time submission	Date	02	Mar. 23 2012	Mar. 26 2012	Mar. 27 2012	Mar. 28 2012	Mar. 29 2012

		Timely submission of results for 2012-13	On-time submission	Date	01	May 1 2013	May 2 2013	May 3 2013	May 6 2013	May 7 2013
Administrative reforms	05	Implement ISO 9001	Prepare ISO 9001 action plan	Date	01	June 4 2012	June 5 2012	June 6 2012	June 7 2012	June 8 2012
			Implementation of ISO 9001 action plan	Date	02	March 25 2013	March 26 2013	March 27 2013	March 28 2013	March 29 2013
		Implement mitigating strategies for reducing potential risk of corruption	% of implementation	%	02	100	95	90	85	80
Improving internal efficiency / responsiveness / service delivery of Ministry / Department	04	Implementation of Sevottam	Independent Audit of Implementation of Citizen's Charter	%	02	100	95	90	85	80
			Independent Audit of implementation of public grievance redressal system	%	02	100	95	90	85	80

Section 3: Trend Values of the Success Indicators

Objectives	Actions	Success Indicators	Unit	Actual value for FY 10/11	Actual Value for FY 11/12	Target Value for FY 12/13	Projected Value for FY 13/14	Projected Value for FY 14/15
Enhancing productivity and quality of vegetables through varietal improvement.	Collection and conservation of genetic resources for sustainable use	No. of exploration made	Number	-	5	5	6	7
		No. of germplasms / accessions augmented	Number	-	60	60	70	80
	Line development	No. of advanced lines selected	Number	-	50	55	60	65
	Development and evaluation of new cross combination	No. of crosses developed	Number	-	160	180	200	225
	Identification of varieties/ hybrids for release	No. of varieties identified	Number	-	2	2	2	3
	Development/and validation of markers for specific traits in vegetables	No. of markers developed/validated	Number	-	4	4	7	8
Production management and post harvest & value addition	Development of technologies for enhancing water use efficiency	Technologies developed /tested	Number	-	1	2	3	4
	Development of technologies for enhancing nutrient use efficiency	Technologies developed /tested	Number	-	2	3	4	5
	Development of IPM technologies	Technologies developed /tested	Number	-	1	1	2	3
	Collection of fungal/bacterial pathogens from different agro-ecological zones and their phenotyping.	Collection, characterization, conservation and documentation of fungal/bacterial pathogens	Number	-	127	40	45	50
	Isolation of entophytic bacteria from vegetable crops for use against	Number of effective beneficial isolates	Number	-	50	7	10	12

	major vegetable diseases							
	Development of diagnostic kit for Fungal/Viral diseases in vegetable	Development of species specific marker for identification of fungal pathogens	Date	-	1/2/12	10/3/13	09/3/14	08/3/15
		Development of virus/strain specific probes for detection of cucurbit viruses	Date	-	1/2/12	10/3/13	09/3/14	08/3/15
	Development of technology for increasing the shelf life and value added processed products	Technology for increasing the shelf life of vegetables developed/tested/validated	Number	-	3	3	4	5
		Technology for value added processed vegetables developed/tested/validated	Number	-	3	4	4	5
Production of quality breeder seed in vegetable crops	Production of breeder seeds in important vegetable crops	Quantity produced	Kg	-	2300	2325	2400	2450
Dissemination of technology	Technology showcasing Training	Training organized	Number	-	18	20	22	25
		Demonstration organized	Number	-	50	55	60	70
Commercialization of Technologies	Identification of partners and providing technologies for demonstration through MTA	Private partners identified	Number	-	5	5	6	7
		Technologies promoted for Licensing	Number	-	40	45	50	55
		Technologies Licensed	Number	-	2	1	2	3
Efficient functioning of the RFD system	Timely submission of RFD 2012-13	On-time submission	Date	-	-	26/03/12	-	-
	Timely submission of results for 2012-13	On-time submission	Date	-	-	02/05/13	-	-
Administrative Reforms	Implement ISO 9001	Prepare ISO 9001 action plan	Date	-	-	05/06/12	-	-
		Implementation of ISO 9001 action plan	Date	-	-	26/03/13	-	-
	Implement mitigating strategies	% of implementation	%	-	-	95	-	-
Improving Internal Efficiency /	Implementation of Sevottam	Implementation of Citizen's Charter	%	-	-	95	-	-

responsiveness / service delivery of Department		Implementation of Public grievance redressal system	%	-	-	95	-	-
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Section 4: Description and definition of success indicators and proposed measurement methodology.

Objective 1. The objective will be achieved by conducting exploration trips, collection, conservation, evaluation and utilization of vegetable germplasm for breeding of improved varieties with superior traits. The success will be measured in terms of number of explorations made, number of germplasm conserved, utilized in breeding program, number of crosses and number of improved varieties/hybrids developed as well as markers developed/validated for the specific traits for their utilization marker assisted selection.

Objective 2. The success will be measured in terms of number of isolates of different pathogens collected and characterized, development of disease diagnostic kits and development of ecofriendly production/protection technology and value added products.

Objective 3. The main aim is to meet out the requirement of vegetable breeder seeds of the country. The success will be measured in terms of quantity of good quality breeder seed produced in various vegetable crops.

Objective 4. The success will be measured in terms of number of training provided to beneficiaries and number of demonstrations organized covering diverse group of farmers for reducing the adoption of technological gaps among farmers/stake holders.

Objective 5. The success will be measured in terms of number of partners identified under Public-Private-Partnership mode, number of technologies promoted for commercialization and number of license negotiated and finalized for commercialization of the technologies.

Section 5: Specific performance requirements from other Departments.

1. With respect to survey, the assistance and cooperation from State Agil. Universities, State Agril. / Hort. Departments, Forest Department and local bodies would be required. Capacity building training of manpower would depend upon financial assistance from different departments like Directorate of Extension, NHRDF, State Departments of Hort./ Agriculture, NHB and NHM (DAC).
2. The establishment of efficient network with international organizations like CPRO-DLO, IPGRI Rome and other CGIAR Institutes like CIAI (Colombia), ICARDA (Syria), DFID, UK, AVRDC, Taiwan, Cornell University, USA, are required which could very well augment the germplasm resources for gearing up the breeding programme as well as it can enhance our-human resources for efficiently managing the research programme.

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

S. No.	Outcome/Impact of organization /RCs	Jointly responsible for influencing this outcome/impact with the following organization(s)/ departments/ministry(s)	Success Indicators	Unit	2010-11	2011-12	2012-13	2013-14	2014-15
1.	Production of quality seed of vegetable crops, development of improved varieties and technologies including value added products	DAC/ SAUs/ NHB/NHM/ APEDA/ State line departments / KVKs, etc.	Increase in production of vegetable crops	Percent	-	2.0%	2.5%	2.5%	3.0%
			Development of improved varieties for vegetable crops	Number	-	2	2	3	3
			Development of production technology (Water use and Nutrient use efficiency)	Number		3	5	7	9
			Development of IPM/IDM technologies	Number		1	1	2	3
			Production of breeder seed	Quintals	-	23.00	23.25	24.00	24.50
			Development of value added products and enhancing shelf-life	Number	-	6	6	8	10
			Awareness of stakeholders through training and demonstrations	Number	-	68	75	82	95
			Capacity building of scientists through training	Number	-	7	10	12	15
			Research papers published in refereed journals	Number	-	12	15	20	25