



Results - Framework Document (RFD)

for

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Anusandhan Sansthan
(2012-2013)**

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Section 1: Vision, Mission, Objectives and Functions

Vision

Providing basis for food and livelihood security to farmers of North-Western Himalayas

Mission

Enhancing the productivity and ecological sustainability of hill agriculture through niche based diversification

Objectives

1. Development of high yielding crop varieties and production of quality seeds for NW hills.
2. Basic and strategic research for crop genetic improvement and production.
3. Conservation and efficient utilization of natural resources.
4. Development of suitable technologies for efficient agro-production/crop health & postharvest technologies.
5. Transfer of agricultural technology.

Functions

- Research towards higher net revenue returns and eco-sustainable agricultural production
- Efficient and sustainable natural resource management

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

Objectives	Weight (%)	Actions	Success indicators	Unit	Weight (%)	Target/ Criteria Value				
						Excellent	Very Good	Good	Fair	Poor
						100%	90%	80%	70%	60%
Development of high yielding crop varieties and production of quality seeds for NW hills	40	Development of new improved varieties in major hill crops (cereals, pulses, oilseeds, small millets, underutilized crops and vegetables)	Promising lines identified for multi-location trials	Number	10	66	60	53	46	40
			New varieties identified/ released	Number	10	5	4	3	2	1
		Production of quality seed of hill crops	Breeder seed	quintal	15	280	250	224	190	160
		Characterization and evaluation of germplasm	Status of evaluation of agro-morphological characters, drought tolerance	Number	5	1200	1060	960	740	720
Conservation and efficient utilization of natural resources	14	Development of technologies for natural resource management	Technologies for enhancing water availability.	Number	4	6	5	4	3	2
			Nutrient sources evaluated	Number	3	8	7	6	5	4
			Testing of materials (entries)/techniques for fodder production	Number	4	85	75	68	60	50
			Identification and	Number	3	16	14	13	12	11

			evaluation of agriculturally important microbes							
Development of suitable technologies for efficient agro-production/crop health & postharvest technologies	12	Development of production technologies for crop management	Testing/ fine tuning of technologies under field conditions	Number	2	22	20	18	16	14
			Testing/ fine tuning of technologies under protected cultivation	Number	2	4	3	2	1	0
			Evaluation of crop-rotations	Number	2	7	6	5	4	3
		Design, development and refinement of technologies in agricultural engineering	Technologies designed/ fabricated/ tested	Number	2	5	4	3	2	1
		Development of protection technologies for pests	Evaluation of bio control agents/organic amendments/bio-products/pesticide/ IPM modules	Number	4	110	100	90	80	70
Transfer of agricultural technology	12	Frontline demonstration (FLD) of promising	Area covered	ha	2	33	30	25	22	20

		technologies	Beneficiaries	Number	1	390	350	310	270	230
		Capacity building of Subject Matter Specialists/ state line departments/ NGOs	Trainings organized	Number	2	11	10	9	8	7
			Beneficiaries	Number	1	110	100	90	80	70
		Knowledge dissemination	Participation in farmers' fair/ goshi/ Krishak helpline/Radio talks /extension meetings farmers fair organized	Number	2	170	150	135	120	100
		Awareness about Protection of Plant Variety & Farmers Right (PPV&FR)/Workshop/Seminar/Review meeting	Conducting of PPV&FR Workshop/Seminar/Review meeting	Number	2	3	2	1	0	0
		Developed products/processes commercialization	Commercialization of institute's technologies	Number	2	2	1	0	0	0
Basic and strategic research for crop genetic improvement and production	10	Marker Assisted Selection (MAS) in wheat	Population selected	Number	5	2	2	0	0	0
		Marker Aided Selection for QPM	Population selected	Number	5	3	3	2	0	0

Efficient Functioning of RFD system	3	Timely submission of RFD approval for 2012-13	On-time submission	Date	2	March 23, 2012	March 26, 2012	March 27, 2012	March 28, 2012	March 29, 2012
		Timely submission of results for 2012-13	On-time submission	Date	1	May 01, 2013	May 02, 2013	May 03, 2013	May 06, 2013	May 07, 2013
Administrative Reforms	9	Implement ISO 9001	Prepare ISO 9001 action plan	Date	2	June 04, 2012	June 05, 2012	June 06, 2012	June 07, 2012	June 08, 2012
			Area of operations covered	%	2	100	95	90	85	80
		Implement mitigating strategies for reducing potential risk of corruption	% of implementation	%	2	100	95	90	85	80
		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	%	1	100	95	90	85	80
	100				100					

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	Targeted Value for FY 12/13	Projected Value for FY 13/14	Projected Value for FY 14/15
Development of high yielding crop varieties and production of quality seeds for NW hills	Development of new improved varieties in major hill crops (cereals, pulses, oilseeds, small millets, underutilized crops and vegetables)	Promising lines identified for multi-location trials	Number	80	86	60	70	75
		New varieties identified/ released/notified	Number	7	8	4	5	6
	Production of quality seed of hill crops	Breeder seed	quintal	265	268	250	240 [#]	240 [#]
	Characterization and evaluation of germplasm	Status of evaluation of agro- morphological characters, drought tolerance	Number	1500	1563	1060	1100	1150 ^{##}
Conservation and efficient utilization of natural resources	Development of technologies for natural resource management	Technologies for enhancing water availability.	Number	5	8	5	7	7*
		Nutrient sources evaluated	Number	8	7	7	6*	6*
		Testing of materials/techniques for fodder production	Number	85	82	75	80	85
		Identification and evaluation of agriculturally important microbes	Number	12	13	14	12	13
Development of suitable technologies	Development of production	Testing/ fine tuning of technologies under field	Number	24	16	20	21	22

for efficient agro-production/crop health & postharvest technologies	technologies for crop management	conditions						
		Testing/ fine tuning of technologies under protected cultivation	Number	4	4	3	3*	4
		Evaluation of crop-rotations	Number	3	7	6	7	8
	Design, development and refinement of technologies in agricultural engineering	Technologies designed/ fabricated/ tested	Number	3	4	4	4**	5
	Development of protection technologies for pests	Evaluation of bio control agents/organic amendments/bio-products/pesticide/ IPM modules	Number	128	106	100	70 ^b	50 ^b
Transfer of agricultural technology	Frontline demonstration (FLD) of promising technologies	Area covered	ha	31	29	30	28 ^{ab}	31
		Beneficiaries	Number	402	450	350	280 ^{ab}	310
	Capacity building of Subject Matter Specialists/ state line departments/ NGOs	Trainings organized	Number	9	16	10	10 ^c	11 ^c
		Beneficiaries	Number	80	375	100	100 ^c	110
	Knowledge dissemination	Participation in farmers' fair/ gosthi/ Krishak helpline/Radio talks /extension meetings farmers fair organized	Number	196	142	150	180	190
	Awareness about Plant Protection Variety &	Conducting of PPVFR workshop/seminar/Revi	Number	4	2	2	2	1 ^d

	Farmers Right (PPVFR)/Workshop/seminar/Review meeting	ew meeting						
	Developed Product/Process commercialization	Commercialization of institute technologies	Number	2	1	1	1	1
Basic and strategic research for crop genetic improvement and production	Marker Assisted Selection (MAS) in wheat	Population selected	Number	6	2	2	2	1 ^a
	Marker Aided Selection for QPM	Population selected	Number	15	3	3	3	3 ^{aa}
Efficient functioning of RFD system	Timely submission of draft for approval	On-time submission	Date	-	23.03.2011	26.03.2012	-	-
	Timely submission of results	On-time submission	Date	-	01.05.2012	02.05.2013	-	-
Administrative Reforms	Implement ISO 9001	Prepare ISO 9001 action plan	Date	-	-	June 05, 2012	-	-
		Area of operations covered	%	-	-	95	-	-
	Implement mitigating strategies for reducing potential risk of corruption	% of implementation	%	-	-	95	-	-
	Implementation of Sevottam	Independent Audit of Implementation of Citizen's Charter	%	-	-	95	-	-
		Independent Audit of implementation of public grievance redressal system	%	-	-	95	-	-

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

Objective 1: With respect to development of varieties in major hill crops, release of varieties (with resistance/tolerance to biotic and abiotic stresses), advance lines, crosses made and seed produced would result in increased productivity for a target situation.

#The land available for breeder seed production at the institute is almost fixed. Moreover the targets will also vary depending of the indent of crop groups. Therefore, trend may vary for different years.

This depends on the number of germplasm received through AICRP which may vary for different years.

Objective2: With respect to basic and strategic studies for crop improvement and production, development of MAS lines for improvement of the target traits in rice, wheat & maize and annual changes in total soil organic carbon content of improved management practices are being evaluated under different cropping systems.

^a The two populations carry different genes and will be finally crossed to pyramid two genes in one populations so it cannot have increasing trends

^{aa}The three populations are being dealt for MAS for QPM and it would continue as such

Objective 3: With respect to conservation and efficient utilization of natural resources, the success indicators include practices related to water harvesting and its efficient utilization, appraisal of nutrient sources and microbes for crop productivity and management for improved land use efficiency.

***Same nutrient sources will be tested at least for two years to have consistent results**

Objective 4: With respect to development of suitable agro-production, protection and post-harvest technologies, it is envisaged to develop viable agro-techniques for different farming conditions (including protected cultivation) and mechanization for drudgery reduction.

**** The technology will be tested next year after designing.**

^b After preliminary evaluation, only the effective agents will be further tested. Hence the number will be reduced.

Objective 5: With respect to capacity building and transfer of technology, empowering officials of line departments and farmers by imparting improved agricultural technologies through trainings, demonstrations, extension activities (farmers fair, field days, gosthis etc.) and communication media like telephone helpline/Radio/TV/extension literature is being undertaken.

^c This will depend on the training proposal receive from the stake holders which is beyond the control of the institute

^d This is allotted by PPVFR authority

^e This will depend on the response of the industry/companies to commercialize the product/technology in hilly areas.

^{ab}The front line demonstrations (FLD) are allotted by the respective crops AICRP. Therefore, area of demonstration/beneficiaries will be variable during different years

Section 5: Specific Performance Requirements from other Departments

1. Support of head quarter is necessary to take up the proposals of the Department. Timely approvals and allocation of approved funds are critical for achieving the targets.
2. Approval of Layout plans and execution of works will require commitment and timeliness on the part of the Works Departments (CPWD).
3. The quantity of breeder seed produced is based on the quantity indented by Department of Agriculture and Cooperation, which in turn collects indents from various seed agencies including State Departments of Agriculture.
4. Entries from multi-location evaluation system/genetic resources from respective sources/policy regarding release of variety will be key for development and release of a variety.
5. Technology adoption would depend upon the proactive role of development departments namely line Dept of State and SAUs, etc.
6. Successful execution of target number of FLDs/Radio &TV talks/ Helpline calls will depend on the other departments.

Section 6: Outcome / Impact of activities of organization

Sr No.	Outcome/Impact of organization/RCS	Jointly responsible for influencing this outcome / impact with the following organization (s) / departments/ministry(ies)	Success Indicator (s)	Unit	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015
	Development of improved varieties and production of quality seed	AICRP,State,DAC,MoA	Number of varieties identified/ released	Number	7	8	4	5	6
			Seed produced	quintal	265	268	250	240	240
	Frontline demonstration (FLD) of promising technologies	DAC,AICRP	Area	ha	31	29	30	28	31
			Beneficiaries	Number	402	450	350	280	310

	Evaluation and utilization of germplasm	AICRP, NBPGR, Crop Institutes	Promising lines identified/registered/utilized	Number	95	100	105	110	115
	Development of production and protection technologies for crop management	AICRP, State	Number of production technologies	Number	4	5	4	5	6
	Knowledge dissemination	Govt of India, States, NGOs etc	Farmers' Fairs organized, beneficiaries, Radio/TV/Mass media	Number	196	142	150	180	200
	IPR / commercialization of VPKAS technologies	All concerned agencies	IPR filed, technologies commercialized	Number	2	1	2	1 ^e	1 ^e