



# RESULTS- FRAMEWORK DOCUMENT (RFD)

for

National Research Centre for Orchids

(2013-2014)

**Address: Pakyong – 737 106, East Sikkim, India**

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## **Section 1: Vision, Mission, Objectives and Functions**

### ***Vision***

- Harnessing science to increase the productivity, generation of employment, support to the industry for export of the cut flowers, potted plants and planting materials of orchids.

### ***Mission***

- Sustainable growth of orchids by mission oriented research with a view to develop new varieties and hybrids suitable for export and to develop suitable production technology

### ***Objectives***

1. Management and utilization of genetic resources for improved productivity
2. Production, protection and post-harvest management
3. Dissemination of knowledge

### ***Functions***

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

## 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	Fair	Poor
							100%	90%	80%	70%	60%
1.	Management and utilization of genetic resources for improved productivity	40	Collection, and conservation of orchid germplasm	Germplasm added and conserved	Number	20	60	55	50	45	40
			Characterization of Orchids	Molecular and DUS characterization of orchids	Number	10	25	20	15	10	8
			Development of improved hybrids	New crossings, in-vitro seed culture and new F1 evaluated	Number	10	25	20	15	10	8
2.	Production, protection and post harvest management	30	Integrated production and post-harvest management of orchids	Production and post-harvest technologies developed	Number	12	6	4	2	1	-
			Production of planting materials	Plantlets produced	Number	10	12000	10000	8000	7000	6000
			Insect-pests and disease management	Protection technologies developed	Number	8	17	14	12	10	7
3.	Dissemination of knowledge	19	Transfer of technologies	Training /demonstration/seminar conducted	Number	11	16	13	10	8	6

				Books/bulletins/folders, CD's published etc.	Number	8	10	8	7	6	4
*	Efficient Functioning of the RFD System	3	Timely submission of Draft RFD (2013-14) for approval	On-time submission	Date	2	15/05/2013	16/05/2013	17/05/2013	20/05/2013	21/05/2013
			Timely submission of Results for RFD (2012-13)	On-time submission	Date	1	01/05/2013	02/05/2013	05/05/2013	06/05/2013	07/05/2013
*	Administrative Reforms	4	Implement ISO 9001 as per the approved action plan	% Implementation	%	2	100	95	90	85	80
			Prepare an action plan for Innovation	On-time submission	Date	2	30/07/2013	10/08/2013	20/08/2013	30/08/2013	10/09/2013
*	Improving internal efficiency/responsiveness/service delivery of Ministry/ Department	4	Implementation of Sevottam	Independent Audit of Implementations 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

### Section 3: Trend Values of the Success Indicators

SI .No.	Objectives	Actions	Success Indicators	Unit	Actual value for FY 11/12	Actual value for FY 12/13	Target Value for FY13/14	Projected Value for FY 14/15	Projected Value for FY 15/16
1.	Management and utilization of genetic resources for improved productivity	Collection and conservation of orchid germplasm	Germplasm added and conserved	Number	45	55	55	58	60
		Characterization of orchids	Molecular and DUS characterization of orchids	Number	13	19	20	22	25
		Development of improved hybrids	New crossing, in-vitro seeds culture and new F1 evaluated	Number	20	20	20	25	27
2.	Production, protection and post harvest management	Integrated production and post-harvest management of orchids	Production and post-harvest technologies developed	Number	4	6	4	6	7
		Production of planting materials	Plantlets produced	Number	9,000	10,000	10,000	10,000	10,000
		Insect pests and disease management	Protection technologies developed	Number	13	10	14	14	14
3.	Dissemination of knowledge	Transfer of technologies	Training / demonstration/seminar conducted	Number	13	15	13	14	15
			Books/bulletins/folders /CD's published etc.	Number	5	8	8	10	11

*	Efficient functioning of the RFD System	Timely submission of Draft RFD (2013-14) for approval	On-time submission	Date			16/05/2013		
		Timely submission of Results for RFD (2012-13)	On-time submission	Date			02/05/2013		
*	Administrative Reforms	Implement ISO 9001 as per the approved action plan	% Implementation	%			95		
		Prepare an action plan for Innovation	On-time submission	Date			10/08/2013		
*	Improving Internal Efficiency/responsiveness/service delivery of Ministry/ Department	Implementation of Sevottam	Independent Audit of Implementations of Citizen's Charter	%			95		
			Independent Audit of Implementation of public grievance redressal system	%			95		

## Section 4: Acronyms

S.No.	Acronym	Description
1.	NBPGR	National Bureau of Plant Genetic Resources
2.	DUS	Distinctiveness, Uniformity and Stability
3.	CD	Compact Disc
4.	R & D	Research & Development
5.	ISO	International Organization for Standardization
6.	AICRP	All India Coordinated Research Project
7.	DAC	Department of Agriculture & Cooperation
8.	SAU	State Agriculture University
9.	HMNEH	Horticulture Mission for North-eastern States

## Section 4: Description and Definition of Success Indicators and proposed Methodology

Sl.No.	Success indicator	Description	Definition	Measurement	General comments
1.	Germplasm added and conserved	Collection and conservation of orchid species	Genetic diversity of orchids in different eco-regions	Number of genotypes	Used for crossing and evaluation programme
2.	Molecular and DUS characterization of orchids	Characterization through molecular markers and DUS test guidelines	Molecular and morphological analysis of species and hybrids	Number of species and hybrids	Used for species level identification and testing of new traits
3.	New crossing, in-vitro seeds culture and new F1 evaluated	Initiation and evaluation of F1 hybrids and segregating population. Testing of new crosses	Performance of new genotypes. Aseptic seed culture.	Number of crosses and new genotypes	Used for development of new hybrids and their multiplication
4.	Production and post-harvest technologies developed	Standardization of production and post-production management of commercial orchids	Agro-techniques for quality flower production and their keeping quality	Number of technologies	Increased production of cut flowers per unit area
5.	Plantlets produced	Production of good quality planting materials of commercial orchids	Mass multiplication through meristem and seed culture	Number of plantlets	Basis for commercial cultivation of orchids
6.	Protection technologies developed	Insect pests and disease management	Integrated controls of insects and diseases including diagnostics and bio-control tools	Number of effective protection techniques	Plant health management for quality flower production
7.	Training / demonstration / seminar conducted	Organization of on-campus and off-campus training and field demonstration on orchid production	Effective extension methods for mass communication	Number of events conducted	Dissemination of knowledge information and technologies
8.	Books/bulletins/folders/CD's published etc	Publication of intellectual assets in soft and hard copies	Documentation of outputs	Number of copies	Knowledge resources

## Section 5: Specific Performance Requirements from other Departments

Sl. No.	Location type	State	Organisation type	Organisation name	Relevant Success Indicator	What is your requirement from this organisation	Please quantify your requirement from this organization	What happens if your requirement is not met
1.	Forest area	Sikkim	Public	Forest Department	Germplasm added and conserved	Permission for collection	55	Shortage of genetic resources for crop improvement
2.	Pusa	New Delhi	Public	AICRP on floriculture	New crossing, in-vitro seeds culture and new F1 evaluated	Notification for release of new hybrids	3	Loss of institutional products
3.	Krishi Bhawan	New Delhi	Public	DAC	Plantlets produced	Human resource and infrastructure development	5	Lack of know-how techniques

## Section 6: Outcome /Impact of activities of department/ ministry

S. No.	Outcome/Impact of organisation	Jointly responsible for influencing this outcome/impact with the following organisation(s)/ departments/ministry(s)	Success Indicators	Unit	2011-12	2012-13	2013-14	2014-15	2015-16
1.	Production of quality seed and planting materials of orchids	DAC/SAU/HMNEH	Increase in area under commercial orchid cultivation	Percent	1.2	1.3	1.33	1.33	1.33
2.	Technology development for enhancing livelihood security	State line departments	New technologies adopted by orchid growers for enhanced productivity	Number	1	1	2	3	4