



Results- Framework Document (RFD)

For

NATIONAL RESEARCH CENTRE FOR ORCHIDS

(2012 – 2013)

**Pakyong, Gangtok – 737 106, East Sikkim
Website: <http://nrcorchids.nic.in>**

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. Conservation of genetic resources/germplasm for sustainable use.
2. Production and post harvest management of orchids.
3. Insect pests and disease management of orchids.
4. Organizing trainings and demonstrations.

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

Objectives	Weight %	Actions	Success Indicators	Unit	Weight %	Target/Criteria Value				
						Excellent 100%	Very Good 90%	Good 80%	Fair 70%	Poor 60%
Conservation of genetic resources/germplasm for sustainable use	30	Collection, conservation of orchid germplasm	Number of germplasm collected	Number	20	50	45	40	35	32
		Molecular /DUS characterization of Orchids	Molecular characterization of <i>Cymbidium</i> orchids and DUS characterization of <i>Cymbidium</i> , <i>Vanda</i> and <i>Dendrobium</i>	Number	10	15	13	12	10	9
Production and post harvest management of orchids	40	Integrated production management of orchids	Number of production technology for <i>Cymbidium</i> , <i>Dendrobium</i> and <i>Phalaenopsis</i> orchids	Number	20	4	3	2	1	0
		Post harvest management	Number of technology for post harvest management in <i>Cymbidium</i>	Number	10	2	1	-	-	-
		Production of planting materials	Number of plantlets produced	Number	10	10000	9000	8000	7000	6000
Insect pests and disease management of orchids	15	Indexing for viral diseases from different locations	Number of locations	Number	10	10	9	8	7	6
		IPM for orchids	Number of targeted pests	Number	05	5	4.5	4.0	3.0	2
Organizing trainings and demonstrations	10	Training /demonstrations / seminar	Number of training and demonstrations organized	Number	10	8	7	5	3	-
Efficient functioning of the RFD system*	03	Timely submission of RFD for 2012-13	On-time submission	Date	02	23/03/12	26/03/12	27/03/12	28/03/12	29/03/12

		Timely submission of results for 2012-13	On-time submission	Date	01	01/05/13	02/05/13	03/05/13	06/05/13	07/05/13
Administrative reforms	05	Implement ISO 9001	Prepare ISO 9001 action plan	Date	01	04/06/12	05/06/12	06/06/12	07/06/12	08/06/12
			Implementation of ISO 9001 action plan	Date	02	25/03/13	26/03/12	27/03/13	28/03/13	29/03/13
		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	Action	Success Indicators	Unit	Actual value for FY 10/11	Actual value FY 11/12	Target Value for FY 12/13	Target Value for FY 13/14	Target Value for FY 14/15
Conservation, characterization and utilization of genetic resources/germplasm	Collection, conservation of orchid germplasm	Number of germplasm collected	Number	45	60	45	50	55
	Molecular characterization of Orchids	Molecular characterization of orchids	Number	13	15	13	15	16
	Development of hybrids for biotic and abiotic stress	Number of crossings and registration	Number	-	-	3	4	4
Production and post harvest management of orchids.	Integrated production management of orchids.	Number of production technology for <i>Cymbidium</i> , <i>Dendrobium</i> and <i>Phalaenopsis</i> orchids	Number	3	3	1	1	2
	Post harvest management	Number of technology for post harvest management in <i>Cymbidium</i>	Number	1.0	2	2	1	2
	Production of planting materials	Number of plantlets produced	Number	9000	8500	9000	9500	10000
Insect pests and disease management of orchids.	Indexing for viral diseases from different locations	Number of locations	Number	8	6	9	9	8
	IPM for orchids	Number of targeted pests	Number	3.0	2	4.5	5	5
Organizing seminar, kisan mela, trainings and demonstrations.	Training /demonstrations / seminar	Number of training and demonstrations organized.	Number	4	10	7	7	8
Efficient functioning of the RFD system	Timely submission of RFD for 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 for reducing potential risk of corruption	% of implementation	%	-	-	95	-	-

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: Description and definition of success indicators and proposed measurement methodology.

Objective 1: The genetic diversity of orchid will be collected from different eco-regions, characterized and promising genotypes would be registered with NBPGR. The success will be measured in terms of number of germplasm collected and characterized and number of genotypes registered with NBPGR.

Objective 2: It is essential to study nutrient requirements of orchids for production of quality cut flowers. Post harvest studies to be conducted to get increased quality and vase life of commercial orchids. Production of good quality planting materials of commercial hybrids of orchid is an important mandate of the institute. Quality planting material would be produced through meristem culture (orchid hybrids) and as *in vitro* produced seedlings (species). The success will be measured in terms of number of good quality planting materials produced.

Objective 3: The biocontrol agents and disease diagnostics are found to be efficient in experimental studies on insect pests and disease control and plant growth promotion will be identified based on phenotypic and biochemical parameters.

Objective 4: For effective transfer of orchid production technologies, it is proposed to organize various extension activities such as trainings, demonstrations, *kisan melas*, awareness camps, AIR/Doordarshan programmes, seminars etc. The success will be measured in terms of number of events held.

Section 5: Specific performance requirements from other Departments.

- Permission from State Biodiversity Boards for collection of orchids from natural habitats is mandatory for collection of orchid germplasm.
- Based on demand from different departments like National Horticulture Board, State departments of Hort./ Agriculture, NHM (DAC) and SAU's.

Section 6. Outcome/Impact of activities of Organisation/ Ministry

S. No.	Outcome/Impact of organisation /RCs	Jointly responsible for influencing this outcome/impact with the following organisation(s)/ departments/ministry(s)	Success Indicators	Unit	2010-11	2011-12	2012-13	2013-14	2014-15
1.	Production of quality seed and planting materials of horticultural crops, development of improved varieties and technologies including value added products	DAC/ SAUs/ NHB/NHM/APEDA/ MoRD/ State line departments / KVKs/ MoWR etc.	Increase in production of horticultural crops	%	2	2.25	2.30	2.35	2.40
			Development of production technology	Number	3	4	5	5	6