



R F D
(Results-Framework Document)
for
Science and Technology
(2012-2013)

Section 1: Vision, Mission, Objectives and Functions

Vision

To promote and popularise Science and Technology for the advancement and welfare of State and its people and to develop scientific temper in them.

Mission

To Promote scientific temper by improvement in quality of science education in schools. Support technology development and technology absorption. Support research in priority areas. Help in creating science related infrastructure. Collaborating with other departments / universities / research institutes. Improve governance through technological shift. Undertake benchmark studies in different fields.

Objective

- 1 Promotion of scientific temper among general masses
- 2 Promotion and improvement in quality of science education in the State.
- 3 Support and promote innovation in the State.
- 4 Encourage research in biotechnology.
- 5 Encourage utilization of remote sensing and GIS techniques for overall developmental planning of the State.

Functions

- 1 Identification of new technologies for agriculture and industry.
- 2 All matters relating to arrangements for processing the new technology.
- 3 All matters relating to liaison with Research Institutions, National Laboratories, Universities and Department of Science & Technology, Govt. of India.
- 4 Dissemination of new technology in the State.

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

Objective	Weight	Action	Success Indicator	Unit	Weight	Target / Criteria Value				
						Excellent	Very Good	Good	Fair	Poor
						100%	90%	80%	70%	60%
[1] Promotion of scientific temper among general masses	20.00	[1.1] Popularization of science through annual quiz & essay contests.	[1.1.1] Timely execution of the contests.	Date	5.00	31/01/2013	15/02/2013	28/02/2013	15/03/2013	31/03/2013
		[1.2] No. of schools participating in districts covered.	[1.2.1] No. of schools participating	Number	5.00	1050	945	840	735	630
		[1.3] No. of students participating in these State level contests	[1.3.1] No. of students participating	Number	5.00	4200	3780	3360	2940	2520
		[1.4] To develop measurement system for collecting baseline data (college).	[1.4.1] Timely development	Date	2.00	10/03/2013	15/03/2013	20/03/2013	25/03/2013	31/03/2013
		[1.5] Prepare a concept note for developing scientific temper and introducing relevant programmes and schemes.	[1.5.1] Timely preparation	Date	3.00	10/03/2013	15/03/2013	20/03/2013	25/03/2013	31/03/2013
[2] Promotion and improvement in quality of science education in the State.	10.00	[2.1] No. of research fellowships awarded & timely release of scholarships.	[2.1.1] No. of research fellowships offered	Number	5.00	25	20	15	10	5
			[2.1.2] Timely release of POSE scholarships	Date	5.00	15/02/2013	28/02/2013	10/03/2013	20/03/2013	31/03/2013
[3] Support and promote innovation in the State.	20.00	[3.1] R&D targets specifying areas of technology research.	[3.1.1] No. of R&D projects approved.	Number	10.00	4	3	2	1	0
		[3.2] percentage of ongoing R&D / new R&D projects meeting the pre agreed milestones.	[3.2.1] % of R&D projects meeting the targests	%	4.00	100	90	80	70	60

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

Objective	Weight	Action	Success Indicator	Unit	Weight	Target / Criteria Value				
						Excellent	Very Good	Good	Fair	Poor
						100%	90%	80%	70%	60%
		[3.3] No. of new / ongoing collaborations with leading national / international institutions.	[3.3.1] Number of collaborations	Number	4.00	5	4	3	2	1
		[3.4] Scheme for putting useful innovation into commercial use.	[3.4.1] No. of new technologies identified for deployment next year.	Number	2.00	5	4	3	2	1
[4] Encourage research in biotechnology.	15.00	[4.1] No. of new areas identified.	[4.1.1] No. of research protocol developed.	Number	1.00	3	2	1	0	0
		[4.2] No. of high quality plants produced.	[4.2.1] No. of high quality plants produced.	Number	3.00	50000	45000	40000	35000	30000
		[4.3] No. of scientists working in this area of plant biotechnology.	[4.3.1] No. of scientists working	Number	3.00	4	3	2	1	0
		[4.4] Training imparted to various categories like farmer, students, entrepreneurs, corporate, etc.	[4.4.1] No. of persons trained	Number	3.00	50	45	40	35	30
		[4.5] No. of products commercialized.	[4.5.1] No. of products commercialized.	Number	2.00	6	5	4	3	2
		[4.6] To prepare the methodology for monitoring the economic benefit of the efforts made in the area of biotechnology.	[4.6.1] Timely preparation of methodology	Date	1.00	10/03/2013	15/03/2013	20/03/2013	25/03/2013	31/03/2013
		[4.7] Creation of a database for research work done in the area of	[4.7.1] Timely creation of database of bio-technologists.	Date	2.00	10/03/2013	15/03/2013	20/03/2013	25/03/2013	31/03/2013

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

Objective	Weight	Action	Success Indicator	Unit	Weight	Target / Criteria Value				
						Excellent	Very Good	Good	Fair	Poor
						100%	90%	80%	70%	60%
		biotechnology in the State.								
[5] Encourage utilization of remote sensing and GIS techniques for overall developmental planning of the State.	25.00	[5.1] No. of collaborating organizations using GIS techniques.	[5.1.1] Number of organizations collaborated.	Number	3.00	8	7	6	5	4
		[5.2] Preparation of project proposals for the identified tasks of the users.	[5.2.1] Number of projects approved.	Number	3.00	5	4	3	2	1
		[5.3] Generation of geospatial information as per the needs of the users	[5.3.1] Number of projects completed as per the user satisfaction	Number	5.00	5	4	3	2	1
		[5.4] Land resources mapping.	[5.4.1] No. of projects taken up on land resources	Number	3.00	3	2	1	0	0
		[5.5] To impart training to officials, teachers and students.	[5.5.1] No. of persons trained.	Number	2.00	100	80	60	50	40
		[5.6] To conduct M.Tech. Geo-informatics program	[5.6.1] No. of students admitted	Number	3.00	25	20	15	10	5
		[5.7] Planned targets for land records in the State.	[5.7.1] digitization of mussavies of the districts completed.	Number	6.00	21	18	15	12	9
* Efficient Functioning of the RFD System	4.00	Timely submission of Draft for Approval	On-time submission	Date	2.0	25/07/2012	26/07/2012	27/07/2012	28/07/2012	29/07/2012
		Finalize a Strategic Plan	Finalize the Strategic Plan for next 5 years	Date	2.0	24/02/2013	25/02/2013	26/02/2013	27/02/2013	28/02/2013

* Mandatory Objective(s)

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

Objective	Weight	Action	Success Indicator	Unit	Weight	Target / Criteria Value				
						Excellent	Very Good	Good	Fair	Poor
						100%	90%	80%	70%	60%
* Improving Internal Efficiency / responsiveness / service delivery of Department	6.00	Develop RFDs for all Responsibility Centers (Subordinate Offices, Attached Offices, Autonomous Bodies,	Percentage of RCs covered	%	2.0	100	95	90	85	80
		Implementation of Sevottam	Create a compliant system to implement, monitor and review Citizen's / Client's Charter	Date	2.0	24/02/2013	25/02/2013	26/02/2013	27/02/2013	28/02/2013
			Create a Compliant system to redress and monitor public Grievances	Date	2.0	25/10/2012	26/10/2012	27/10/2012	28/10/2012	29/10/2012

* Mandatory Objective(s)

Section 3: Trend Values of the Success Indicators

Objective	Action	Success Indicator	Unit	Actual Value	Actual Value	Target Value	Projected Value for	Projected Value for
				FY 10/11	FY 11/12	FY 12/13	FY 13/14	FY 14/15
[1] Promotion of scientific temper among general masses	[1.1] Popularization of science through annual quiz & essay contests.	[1.1.1] Timely execution of the contests.	Date	--	--	15/02/2013	15/02/2014	--
	[1.2] No. of schools participating in districts covered.	[1.2.1] No. of schools participating	Number	--	--	945	945	--
	[1.3] No. of students participating in these State level contests	[1.3.1] No. of students participating	Number	--	--	3780	3780	--
	[1.4] To develop measurement system for collecting baseline data (college).	[1.4.1] Timely development	Date	--	--	31/03/2013	31/03/2014	--
	[1.5] Prepare a concept note for developing scientific temper and introducing relevant programmes and schemes.	[1.5.1] Timely preparation	Date	--	--	31/03/2013	31/03/2014	--
[2] Promotion and improvement in quality of science education in the State.	[2.1] No. of research fellowships awarded & timely release of scholarships.	[2.1.1] No. of research fellowships offered	Number	--	--	20	20	--
		[2.1.2] Timely release of POSE scholarships	Date	--	--	28/02/2013	--	--
[3] Support and promote innovation in the State.	[3.1] R&D targets specifying areas of technology research.	[3.1.1] No. of R&D projects approved.	Number	--	--	3	3	--
	[3.2] percentage of ongoing R&D / new R&D projects meeting the pre agreed	[3.2.1] % of R&D projects meeting the targests	%	--	--	90	90	--

Section 3: Trend Values of the Success Indicators

Objective	Action	Success Indicator	Unit	Actual Value FY 10/11	Actual Value FY 11/12	Target Value FY 12/13	Projected Value for FY 13/14	Projected Value for FY 14/15
	milestones.							
	[3.3] No. of new / ongoing collaborations with leading national / international institutions.	[3.3.1] Number of collaborations	Number	--	--	4	4	--
	[3.4] Scheme for putting useful innovation into commercial use.	[3.4.1] No. of new technologies identified for deployment next year.	Number	--	--	4	4	--
[4] Encourage research in biotechnology.	[4.1] No. of new areas identified.	[4.1.1] No. of research protocol developed.	Number	--	--	2	2	--
	[4.2] No. of high quality plants produced.	[4.2.1] No. of high quality plants produced.	Number	--	--	45000	45000	--
	[4.3] No. of scientists working in this area of plant biotechnology.	[4.3.1] No. of scientists working	Number	--	--	3	3	--
	[4.4] Training imparted to various categories like farmer, students, entrepreneurs, corporate, etc.	[4.4.1] No. of persons trained	Number	--	--	45	45	--
	[4.5] No. of products commercialized.	[4.5.1] No. of products commercialized.	Number	--	--	5	5	--
	[4.6] To prepare the methodology for monitoring the economic benefit of the efforts made in the area of	[4.6.1] Timely preparation of methodology	Date	--	--	31/03/2013	31/03/2014	--

Section 3: Trend Values of the Success Indicators

Objective	Action	Success Indicator	Unit	Actual Value FY 10/11	Actual Value FY 11/12	Target Value FY 12/13	Projected Value for FY 13/14	Projected Value for FY 14/15
	biotechnology.							
	[4.7] Creation of a database for research work done in the area of biotechnology in the State.	[4.7.1] Timely creation of database of bio-technologists.	Date	--	--	31/03/2013	31/03/2014	--
[5] Encourage utilization of remote sensing and GIS techniques for overall developmental planning of the State.	[5.1] No. of collaborating organizations using GIS techniques.	[5.1.1] Number of organizations collaborated.	Number	--	--	7	7	--
	[5.2] Preparation of project proposals for the identified tasks of the users.	[5.2.1] Number of projects approved.	Number	--	--	4	4	--
	[5.3] Generation of geospatial information as per the needs of the users	[5.3.1] Number of projects completed as per the user satisfaction	Number	--	--	4	4	--
	[5.4] Land resources mapping.	[5.4.1] No. of projects taken up on land resources	Number	--	--	2	2	--
	[5.5] To impart training to officials, teachers and students.	[5.5.1] No. of persons trained.	Number	--	--	80	80	--
	[5.6] To conduct M.Tech. Geo-informatics program	[5.6.1] No. of students admitted	Number	--	--	20	20	--
	[5.7] Planned targets for land records in the State.	[5.7.1] digitization of mussavies of the districts completed.	Number	--	--	18	18	--

Section 3: Trend Values of the Success Indicators

Objective	Action	Success Indicator	Unit	Actual Value FY 10/11	Actual Value FY 11/12	Target Value FY 12/13	Projected Value for FY 13/14	Projected Value for FY 14/15
* Efficient Functioning of the RFD System	Timely submission of Draft for Approval	On-time submission	Date	--	--	26/07/2012	--	--
	Finalize a Strategic Plan	Finalize the Strategic Plan for next 5 years	Date	--	--	25/02/2013	--	--
* Improving Internal Efficiency / responsiveness / service delivery of Department	Develop RFDs for all Responsibility Centers (Subordinate Offices, Attached Offices, Autonomous Bodies,	Percentage of RCs covered	%	--	--	95	--	--
	Implementation of Sevottam	Create a compliant system to implement, monitor and review Citizen's / Client's Charter	Date	--	--	25/02/2013	--	--
		Create a Compliant system to redress and monitor public Grievances	Date	--	--	26/10/2012	--	--

* Mandatory Objective(s)

Section 4: Acronym

Sl.No	Acronym	Description
1	CBSE	Central Board of Secondary Education
2	CPB	Center for Plant Biotechnology, Hisar
3	GIS	Geographic Information System
4	HARSAC	Haryana Space Application Center, Hisar
5	HSCST	Haryana State Council for Science & Technology
6	ICSE	Indian Certificate of Secondary Education

Section 4: Acronym

Sl.No	Acronym	Description
7	POSE	Promotion of Science Education scholarship scheme
8	R&D	Research and Development
9	UGC	University Grants Commission

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

Success Indicator	Definition and Explanation of Success Indicator
1.1.1: Timely execution of contests	The annual quiz and essay contests are organized separately for the school and college students. Further, the quiz contests at school level are organized for the schools of Haryana Board and CBSE/ICSE separately.
1.2.1: No. of schools participating	Participation of about 50 schools per districts in the essay and quiz contests are targeted.
1.3.1: No. of Students participating	In quiz and essay contests participation of about four students per school are being targeted.
1.4.1: Timely development	The mechanism for the collection of data of science students enrolled in undergraduate courses from the Higher Education department will be developed during the current year. Thereafter, the data will be collected annually.
1.5.1: Timely preparation	A concept note for developing scientific temper among general masses will be prepared during the current year.
2.1.1: No. of research fellowships offered	The department awards research fellowships on UGC pattern to the students pursuing Ph.D. in Universities / Institutes of Haryana, on the basis of their performance in NET exam.
2.1.2: Timely release of POSE scholarships	Handsome scholarships namely Promotion of Science Education (POSE) are offered to the B.Sc. (Honours) and M.Sc. students having opted the basic science subjects Physics, Chemistry, Botany, Zoology, Mathematics and Geology.
3.1.1: No. of R&D projects approved	To support the Research and Development activities, the department provides funds to the scientists of Universities / Research Organizations of the State depending upon the budget availability.
3.2.1: %age of R&D projects meeting the targets.	While sanctioning the R&D projects, some predefined targets are set for the proponent and subsequent installments of the funds are released depending upon the performance / progress of the project.
3.3.1: Number of collaborations	It is necessary to explore new association / collaboration with the Universities / Research organizations / District Administration for promotion and popularization of science and technology.
3.4.1: No. of new technologies identified for deployment next year	New technologies will be identified for deployment in the area of Energy, Education, Health, Water Supply etc.
4.1.1: No. of research protocols developed	Research protocols are required for the production of rare and elite genotypes of various types of horticultural, medicinal, forest and other crop plant species using tissue culture technology
4.2.1: No. of high quality plants produced.	High quality and disease free planting material will be produced through tissue culture and supplied to the farmers/users
4.3.1: No. of scientists working	Scientists are required to develop the research protocols for production of high quality planting material of different plant species
4.4.1: No. of persons trained.	Students, teachers, farmers etc. will be trained in the area of plant tissue culture to popularize this technology in the state.
4.5.1: No. of products commercialized	Newly developed research protocols will be used for commercial production of high quality and disease free planting material
4.6.1: Timely preparation of methodology	It involves the development of new protocols for commercial plant production.

4.7.1: Timely creation of database of bio-technologists.	CPB will create a database of the scientists of the region working in the field of bio-technology.
5.1.1: No. of organizations collaborated.	The collaborations are planned to facilitate the planning process of various user department and to promote G-governance.
5.2.1: No. of projects approved	Different applications in respective areas for the user departments are identified.
5.3.1: No. of projects completed as per the user satisfaction	Applications in respective areas for the user departments are developed.
5.4.1: No. of projects taken up on land resources	Various projects for identifying the current land use and the futuristic land use plans for the State are taken up.
5.5.1: No. of persons trained	The trainings are arranged for creating awareness and capacity building in various user departments for utilization of Remote Sensing and GIS techniques.
5.6.1: No. of students admitted	HARSAC is running two years M.Tech Geo-informatics programme in collaboration with the Guru Jambheshwar University of Science and Technology, Hisar.
5.7.1: Digitization of mussavies of the districts completed.	HARSAC is working on the Modernization of Land Records project for the Revenue Department, Haryana under the National Land Records Modernization Programme (NLRMP) of Ministry of Rural Development, Govt. of India. Under this project, the scanning, digitization and integration with Record of Rights of the land records is being done.

Section 5:
Specific Performance Requirements from other Departments

Department	Relevant Success Indicator	What do you need?	Why do you need it?	How much you need?	What happens if you do not get it?
Education Department	Timely execution of contests	Timely organization at district level	In order to complete the competitions upto State level well in time.	Their cooperation will help in timely execution of the contests	The contests will be delayed.
-do-	No. of participating schools	Maximum participation from schools is required.	To give wide coverage for the competitions	Maximum participation from schools	The quality of competition will be degraded.
-do-	No. of students participating	Maximum participation is required	To maintain quality competition among students	Maximum participation of students	The quality of competition will be degraded.
Education Department	To develop measurement system for collecting baseline data (colleges)	No. of students enrolled in Under Graduate science courses	To see the trend of enrolment towards science streams	All type of related data course wise, subject wise etc.	Trends and the impact of our programmes could not be identified.
Education Department	Timely release of POSE scholarships	Timely receipt of applications through universities / colleges	To receive in time genuine applications	Applications from maximum eligible candidates	The release of scholarships will be delayed.
Revenue Department	Digitization of mussavies of the districts completed	All records related to cadastral maps and coordination from revenue officials	To transform the analog system to digital system for effective Land Records Management	Revenue records of all the villages of the State	The project progress will be delayed.

Section 6: Outcome/Impact of Department/Ministry

Outcome/Impact of Department/Ministry	Jointly responsible for influencing this outcome / impact with the following department (s) / ministry(ies)	Success Indicator	Unit	FY 10/11	FY 11/12	FY 12/13	FY 13/14	FY 14/15
1 To develop system for collection of baseline data and regular collection annually from colleges thereafter.	Education Department	Number of students taking admission in graduate courses in sciences.	Number			TBD		
2 Utilization of space technologies in developmental planning	All departments	Number of departments collaborated and adopting the GIS technologies for their overall planning.	Number			7		
3 Computerization of land records	Revenue Department	Number of districts where village maps digitized.	Number			18		
4 Planting of high yielding disease free plants	Agriculture, Horticulture, Forests	Number of plants sold / distributed by CPB.	Number			45000		
5 Preparation of protocols of high yielding disease free planting material.	Agriculture, Horticulture, Forests	Number of protocols developed.	Number			2		
6 Facilitation in filing of patent applications	State Universities, Academic Institutions, Education and Industries Department	No. of patent applications filed.	Number			2		