

Ministry of Agriculture and Farmer's Welfare

Department of Agricultural Research and Education

Demand No. 2

1. Horticultural Sciences (CS)

FINANCIAL OUTLAY (Rs in Cr)	OUTPUTS 2023-24			OUTCOMES 2023-24		
	2023-24	Output	Indicators	Targets 2023-24	Outcome	Indicators
212	1. Knowledge Product Development	1.1 Varieties to be released by CVRC	45	1. Transforming the business norms	1.1 Varieties to be entered in breeder seed chain/planting materials during the year	60
		1.2 Practices, including GAPs/ diagnostic kits/ mobile apps to be developed and films/ documentary to be produced	86		1.2 Varieties/ formulations/ diagnostics/ vaccines/ technologies/ Knowledge products to be commercialized	19
		1.3 Breakthroughs in R&D	5	2. Breaking the barriers	2.1 Increase in production/productivity over last year/ state average (kg)	60
		1.4 Practices/technologies to be included in POPs	23		2.2 Percent genetic gain due to the technology (variety, breed etc.)	0.6
	2. Capacity building	2.1 Students appointed as scientists, assistant professor, etc.	16	3. Outcome quality	2.3 Percent change in seed/variety replacement rate over previous year	1.5
					3.1 H-Score/J-Score of research articles/reports to be published	600
					3.2 Revenue to be generated through commercialization of knowledge products (Rs. crores)	18

2. Natural Resource Management (CS)

FINANCIAL OUTLAY (Rs in Cr)	OUTPUTS 2023-24			OUTCOMES 2023-24			
	2023-24	Output	Indicators	Targets 2023-24	Outcome	Indicators	Targets 2023-24
240	1.	New knowledge product developed/delivered	1.1 Climate resilient villages created	40	1. Transforming the business norms	1.1 Percent change in average income in the climate resilient villages over pre-adoption period	10
			1.2 Contingency plans (CP) to be prepared/modified.	100	2. Breaking the barriers	2.1 % change in production/ productivity over state/national average over previous year	2
			1.3 Block level land use plans prepared/modified	50		2.2 Improved efficiency of input use over previous practice / farmers practice (%)	10
			1.4 Good agriculture practices to be developed on soil, water, crops, and farming system management	47	3. Outcome quality	3.1 H-Score/J-Score of research articles/reports to be published	250
			1.5 No. of peer-reviewed publication (NAAS>6)	105		3.2 Patents / IPR/ Copy rights to be granted	5
			1.6 Practices/technologies to be included in Packages of Practices (POPs) by state agency	5		3.3 Technologies to be commercialized / use in the state / NARS system	5
			1.7 Villages covered under adoption of technology	10	3.4 Percent of farmers who adopted the new technology	20	

3. Agricultural Engineering (CS)

FINANCIAL OUTLAY (Rs in Cr)	OUTPUTS 2023-24			OUTCOMES 2023-24		
	2023-24	Output	Indicators	Targets 2023-24	Outcome	Indicators
65	1. Development/improvement of prototype machines & process protocols for mechanization of agriculture production and post-production	1.1 Number of new prototype machines to be developed/improved	18	1. Commercialization of developed machines/ process protocols/ products	1.1 Licenses, patents to be granted/ published	12
		1.2 Number of new process protocols to be developed/improved	8			
	2. Testing of machines and products	2.1 Revenue to be generated by sample/ machine testing/ licensing etc. (Rs. in Crore)	3	2. Outcome quality	2.1 Number of Farmers, entrepreneurs, students, and other stakeholders to be trained on farm mechanization and post-harvest processing	410

4. Animal Sciences (CS)

FINANCIAL OUTLAY (Rs in Cr)	OUTPUTS 2023-24			OUTCOMES 2023-24		
	2023-24	Output	Indicators	Targets 2023-24	Outcome	Indicators
336.92	1. New knowledge product	1.1 No. of peer reviewed research publications	676	1. Transforming the business norms	1.1 Technologies/formulations/diagnostics kits/vaccines to be commercialized	13

FINANCIAL OUTLAY (Rs in Cr)	OUTPUTS 2023-24			OUTCOMES 2023-24			
	2023-24	Output	Indicators	Targets 2023-24	Outcome	Indicators	Targets 2023-24
	developed/delivered	1.2 Animal vaccines/vaccine candidates/kits; Feed/herbal formulations/ livestock products/ by-products to be developed		33		1.2 Percent change in descript population for conservation over previous year	15
						1.3 Patents granted/ GI/Copyrights to be registered	12
						2.1 Percent change in livestock productivity over last year/ state average	10
						2.2 Percent genetic gain due to the technology (variety, breed etc.)	0.6
						2.3 Per cent reduction in major disease incidence and production loss	10
	2.4 Percent gain due to the technology (breed, improved germplasm/products etc.)	1.0					
2. Capacity building	2.1 Human resource graduated/ trained		377		2.5 Percent change in seed/variety replacement rate over previous year	1.5	

FINANCIAL OUTLAY (Rs in Cr)	OUTPUTS 2023-24			OUTCOMES 2023-24		
	2023-24	Output	Indicators	Targets 2023-24	Outcome	Indicators
		2.2 Farmers/ Professionals/ Entrepreneurs trained	1371	3. Outcome quality	3.1 H-Score/J-Score of research articles/reports to be published	52
					3.2 Revenue to be generated through commercialization of knowledge products (Rs. crores)	0.50
				4. Policy support	4.1 No. of inputs/ knowledge products/models to be incorporated in government policies/ strategies	2

5. Fisheries Sciences (CS)

FINANCIAL OUTLAY (Rs in Cr)	OUTPUTS 2023-24			OUTCOMES 2023-24		
	2023-24	Output	Indicators	Targets 2023-24	Outcome	Indicators
150	1. New knowledge product developed/delivered	1.1 Fish breeding & seed production technologies to be developed	6	1. Transforming the business norms	1.1 Percent change in production/ productivity over last year	6
		1.2 Farming practices, including GAPs to be developed	5		1.2 New fish species to be added in aquaculture production chain	5

FINANCIAL OUTLAY (Rs in Cr)	OUTPUTS 2023-24			OUTCOMES 2023-24			
	2023-24	Output	Indicators	Targets 2023-24	Outcome	Indicators	Targets 2023-24
		1.3	No. of breakthrough in R&D	6		1.3 Formulations/ diagnostics/ vaccines/ technologies to be commercialized	5
		1.4	Formulations/value-added products (fish feed, diagnostics, vaccines, therapeutics & other health products, nutraceuticals, post-harvest fish products, waste-to-wealth products, etc.) to be developed Forecasting of livestock diseases to be released	16	2. Outcome quality	2.1 Percent change in the commercial hatcheries to adopt genetically-improved fish seed production through institutional support over last year	20
					3. Policy Support	3.1 Knowledge products to be incorporated in policies / strategies of public / private sectors	2

6. Agricultural Extension (CS)

FINANCIAL OUTLAY (Rs in Cr)	OUTPUTS 2023-24			OUTCOMES 2023-24		
	2023-24	Output	Indicators	Targets 2023-24	Outcome	Indicators

189.05	1. Delivery of knowledge product via capacity building	1. On-Farm Trials (OFT) & Front-Line Demonstrations (FLD) (lakh)	2.02	1. Enhanced level of adoption of location-specific technologies for farmer-centric growth	1.1 Rate of Adoption of New Technologies (%)	10
		1.2 Farmers & Extension Personnel to be trained (lakh)	16.20			
	2. Strengthening the subsidiary services	2.1 No. of soil samples tested (in lakh)	3.50			
		3. Ease of Access to Critical Inputs	3.1 Quality Seed of Field/Horticultural Crops produced & distributed (in tons)			
	3.2 Quality Planting materials produced & distributed (in lakh)		250			

7. Agricultural Education (CS)

FINANCIAL OUTLAY (Rs in Cr)	OUTPUTS 2023-24				OUTCOMES 2023-24		
	2023-24	Output	Indicators	Targets 2023-24	Outcome	Indicators	Targets 2023-24
322.74	1. Teaching, learning and resource student strength	1.1 Students to be enrolled in UG, PG and Ph.D Programmes (lakh)	2.15	1. Agriculture education environment	1.1 Students qualifying JRF/SRF/NET/GATE exams	3500	
		1.2 No. of girls enrolled	94,600		1.2 No. of Universities with active placement cells	55	
		1.3 Masters and Doctoral Degrees to be awarded	11,000		1.3 No. of students selected through campus placements	6700	
		1.4 Change in enrollment over previous year (%)	10		1.4 Student/graduate to be self-employed (Self-employments/ Startups)	20	
		1.5 Change in proportion of girl students enrolled over	2	2. Professional excellence	2.1 Patents to be granted/Copyrights to be Registered	6	

FINANCIAL OUTLAY (Rs in Cr)	OUTPUTS 2023-24			OUTCOMES 2023-24			
	2023-24	Output	Indicators	Targets 2023-24	Outcome	Indicators	Targets 2023-24
			previous year (%)				
	2.	Infrastructural facilities	2.1 No. of student/faculty amenities created	40	3. National/ International Recognition	3.1 Publications in high impact factor journals	400
	3.	New knowledge products developed	3.1 No. of national and international collaborations	50		3.2 H-Score/J-Score of research publications	15
			3.2 Practices/ technologies to be included in POPs	2		3.3 AUs in world ranking up to 500	2
				4. Policy support	4.1 No. of inputs/ knowledge products/models to be incorporated in government policies/ strategies	2	

8. National Agriculture Higher Education Project (NAHEP)

FINANCIAL OUTLAY (Rs in Cr)	OUTPUTS 2023-24			OUTCOMES 2023-24			
	2023-24	Output	Indicators	Targets 2023-24	Outcome	Indicators	Targets 2023-24
92.26	1.	Trainings/ capacity building	1.1 International trainings undertaken by students	150	1. Agriculture education environment	1.1 Percent change in AU on time graduation rate over last year	2
			1.2 International trainings undertaken by faculty	110		1.2 Percent change in student placement rates over last year	2

FINANCIAL OUTLAY (Rs in Cr)	OUTPUTS 2023-24			OUTCOMES 2023-24			
	2023-24	Output	Indicators	Targets 2023-24	Outcome	Indicators	Targets 2023-24
	2.	Promotion of research, technology transfer & collaborations	2.1 Industry seminars and professional workshops to be conducted	220	2. Increased student and faculty diversity	2.1 Percent change in student diversity over last year (AU students admitted from other States)	4
			2.2 Number of MoUs to be signed with industry	10		2.3 Percent change in faculty diversity over last year (%) (Faculties with HE degrees from than one university and more than one state)	4
	3.	Knowledge product & new courses developed/upgraded	3.1 New pilot courses & knowledge products to be added/ upgraded	15	3 Increased faculty research effectiveness	3.1 Percent change in faculty research effectiveness over last year	2
	4.	Education facilities Developed /upgraded	4.1 No. of new facilitative units / amenities to be created to enable academic and research infrastructure	10			

1. Crop Sciences (CS)

FINANCIAL OUTLAY (Rs in Cr)	OUTPUTS 2023-24			OUTCOMES 2023-24		
	2023-24	Output	Indicators	Targets 2023-24	Outcome	Indicators

685.00*	3. Knowledge Product Development	2.1 Varieties to be released by CVRC	130	4. Transforming the business norms	1.3 Varieties to be entered in breeder seed chain during the year	100
		1.5 Practices, including GAPs to be developed	80		1.4 Varieties/ formulations/ diagnostics/ vaccines/ technologies to be commercialized	20
		1.6 Number of Formulations/ breakthroughs in R&D	9		1.5 Increase in production/productivity over last year/ state average (kg)	50
		1.7 Practices/technologies to be included in POPs	30	5. Breaking the barriers	2.4 % genetic gain due to the technology (variety, breed etc.)	0.5
	4. Capacity building	2.2 No. of farmers trained successfully	500		2.5 % change in seed/variety replacement rate over previous year	2
		2.3 Students appointed as Scientists, Assistant Professor, etc.	25	6. Outcome quality	3.3 H-Score/J-Score of research articles/reports to be published	1,000
			3.4 Knowledge products to be commercialized		3	
			3.5 Revenue to be generated through commercialization of knowledge products (Rs. crores)		80	

*Tentative