

ICAR-NAHEP CAAST

Jawaharlal Nehru Krishi Vishwa Vidyalaya, Jabalpur M.P.

CAAST on Skill Development to use spatial data for Natural Resources management in Agriculture

2nd quarter physical and financial targets of all capital and revenue heads & subheads for F.Y. 2020-21

S. No.	Particulars	Targets	Financial target (Rs. in Lakh)
	Grant-in-aid-Capital		
A.	Goods & Equipment		
	Equipment, Plant & Machinery	Sepctro-radiometer , Drone, Work stations, Server, software audio visuals and network storage attachments.	90.00
	Office Equipment	Multifunctional Photocopier machine	4.00
	Laboratory Equipment	GPS, Nitrogen meter, Drone imaging s/w, ARC GIS etc software, digital terminals, LAN, WiFi, CCTV, Air conditioners, UPS etc	102.00
	Furniture & Fixtures	Book shelves, Steel racks, Lab Stools, stell almira, file cabinets, compactors, side tables, and furnishing items	9.00
	Computers & Peripherals	Printers, Hard disks scanners, internet modem and peripherals	7.00
	Books & Journals		-
A.	SUB TOTAL		212.00
B.	Civil Works		
	Minor repair & renovation work	Renovation of RS lab, Skill Development /Training/ seminar hall and NAHEP-CAAST Spatial Data lab and project office	40.00
B.	SUB TOTAL		40.00
I	TOTAL(A+B)Grant-in-aid Capital		252.00
	Grant-in-aid-General		
C.	Human Capacity Building		
	National Level Training		-
	International Level Training		-
	Short visits/Seminars	Seminars on ESP and EAP	1.50

	Meetings & Workshops	Workshop on RS and GIS capacity and applications	1.50
C.	SUB TOTAL		3.00
D.	Consultancy		
	National Level Consultancies	Consultancies on building lab, computer setup, software, equipment's selection and installations	5.00
D.	SUBTOTAL		5.00
E.	Recurrent Cost		
	Travel expenses		6.00
	Contractual Services	Recruitment of 6RA, 5SRF, 6YPs and labours	8.00
	Operational Costs	Awareness program for Students-3 Introductory program for administrators-3 Capacity building for Scientists, Teachers, officials, students and young professionals-2	10.00
	Institutional Charges		5.00
	SUBTOTAL		29.00
II	TOTAL(C+D+E) Grant-in-aid-General		37.00
III	Grand Total(I+II)		289.00

List of Equipment, Plant and Machinery & Laboratory equipment with accessories

A. Equipment, plant & Machinery	Nos.	Total (Lakh)	Justification	Limit 90.00 lakh
Sepctro-radiometer (350 – 1100nm)	2	20.00	For conducting practical to make trainees understand the spectral behavior of natural targets – corps, soils, water, etc. Used for collection of reflectance from different land uses and vegetation. This is required for diagnostic analysis of crop conditions and yield assessment.	
Drone with multispectral sensor and application equipments	1	20.00	To create high quality 3D maps using multi spectral cameras and laser scanners on field basis for precision farming.	
Work Station	20	40.00	To handle heavy data as satellite image data and its analysis for processing /modeling/product development. For PG and PhD students and team members to work on research objective.	
Server with software	2	10.00	To store, process and serve for multi terminals during training programme.	
Total		90.00		
B. Office Equipment	Nos.	Total (Lakh)	Justification	Limit 4.50 lakh
Multifunctional Photocopier machine	2	4.00	For multiple copies for training materials.	
Total (B)		4.00		
C. Laboratory Equipment	Nos.	Total (Lakh)	Justification	Limit 120.00 lakh
Geo-Positioning Systems	15	4.50	To locate/position of object on earth surface. To verify the object as classified on the satellite image during capacity building programme for mapping of ground data into digital format.	
Hand held crop nitrogen sensor	8	8.00	To assess nitrogen content in the crop for specifying the amount of nitrogenous fertilizer application rate.	
Drone Image Processing Software Pix4D	1	10.00	Required for preprocessing of drone images collected from sensors for use in different applications	

Software ArcGIS (45 user), ERDAS (50 User with three year license) Imagine, MIKE SHE(Multiuser), Visual MODFLOW (3D) (Multiuser), MATLAB, Crop growth modeling s/w, etc.	-	30.00	For Satellite image processing and GIS operations. For modeling in the field of ground water, crop growth and big data analysis.
Digital Terminals	50	20.00	Terminals connected with the server to be used by individuals in training for learning and practicing the technology and its application.
Equipment for LAN/Wifi networking	-	10.00	Connectivity of all terminals to a common network to server as well as internet connectivity.
Interactive LED Display with Digital Podium 8X6 feet 120”diagonal	2	10.00	For presentation during trainings, project meeting, student seminar etc.
CCTV with 20 cameras with control unit	1	1.50	For Surveillance in and around training unit, laboratory and office.
Air Conditioner	6	3.00	For comfortable working of human and technical resources and making dust free atmosphere in the Lab.
Off Line UPS 10 KVA	5	5.00	For maintaining uninterrupted power supply to training unit.
Total (C)		102.00	
D. Furniture and fixtures	No	Total	Justification Limit 9.00 lakh
Book Selves	10	1.00	For safety of books.
Steel Rake	6	0.50	To accommodate records.
Lab Stool	10	0.50	For office assistants.
Steel Almirah	6	1.20	For keeping records and document.
File cabinet	4	1.00	Placing of files.
Compactor	1	1.00	For safe custody of official document including financial file.
Side table with drawer	5	1.00	For office assistants.
Furnishing items	-	2.80	For office assistants.
Total (D)		9.00	
E. Computer & Peripheral	Nos.	Total (Lakh)	Justification Limit 8.00 lakh
Black & White and colour Printers	-	2.50	For efficient and technical work of SRF/RA/Co-PI/Associate Scientist. For preparation of reports, fast processing of information, Scientific knowledge
Portable Hard Disks and other Storage Deveices amd Wifi modem with internet	20	2.00	
Photo scanner	2	0.50	
Other peripherals	-	2.00	

Total (E)		7.00	
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ESP Activity Work Plan

Second Quarter activities (FY 2020-2021)

S.No.	Month / Date	Work plan	Action to be taken by
1.	01-07-20	AWARENESS PROGRAMME: Application of Remote Sensing & GIS in Agriculture and allied subjects	Dr. G.S. Tagore
2.	02-07-20	AWARENESS PROGRAMME: Introduction to GIS	Dr.S.K.Sharma
3.	23-07-20	AWARENESS PROGRAMME: Applications of RS in Soil & Water Engineering	Dr. A.K. Bajpai
4.	24-07-20	AWARENESS PROGRAMME: Applications of GIS in Soil & Water Engineering	Dr. S.K. Pyasi
5.	25-07-20	AWARENESS PROGRAMME: An application of Mobile in survey	Dr. M.K. Awasthi
6.	27-07-20	AWARENESS PROGRAMME: Applications of RS & GIS in Farm Machinery & Power	Er. Manish Patel
7.	28-07-20	AWARENESS PROGRAMME: Applications of RS & GIS in Post Harvest Process & Food Engineering	Dr. C.M. Abrol
8.	30-07-20	AWARENESS PROGRAMME: Applications of RS & GIS in Plant Breeding	Dr.R.Shiv Ramakrishnan Mudaliyar
9.	31-07-20	AWARENESS PROGRAMME: Applications of RS & GIS in Crop Physiology	Dr. Gyanendra Tiwari
10.	04-08-20	AWARENESS PROGRAMME: Applications of RS & GIS in Entomology	Dr. S.B. Das
11.	05-08-20	AWARENESS PROGRAMME: Applications of RS & GIS in Forestry	Dr. R. Bajpai
12.	07-08-20	AWARENESS PROGRAMME: Applications of RS & GIS in Basic Sciences	Dr. A.K. Rai

13.	11-08-20	AWARENESS PROGRAMME: Applications of RS & GIS in Economics	Dr. Deepak Rathi
14.	12-08-20	AWARENESS PROGRAMME: Applications of RS & GIS in Horticulture	Dr. S.K. Pandey
15.	13-08-20	AWARENESS PROGRAMME: Applications of RS & GIS in Agronomy	Dr. P.B. Sharma
16.	14-08-20	AWARENESS PROGRAMME: Applications of RS & GIS in Agro meteorology	Dr. Manish Bhan
17.	14-08-20	AWARENESS PROGRAMME: Applications of RS & GIS in Big Data Analysis	Dr. H.L. Sharma
18.	24-08-20	CAPACITY BUILDING & TRAINING: Rain water harvesting & its efficient use	Dr.S.K.Pyasi
19.	25-08-20	CAPACITY BUILDING & TRAINING: Good Laboratory Practices for safety against laboratory hazards	Dr. Ashish Kumar
20.	26-08-20	CAPACITY BUILDING & TRAINING: Integrated farming system	Dr.P.B.Sharma & Dr.M.K.Awasthi
21.	27-08-20	CAPACITY BUILDING & TRAINING: Promotion of soil health	Dr.G.S.Tagore
22.	28-08-20	CAPACITY BUILDING & TRAINING Green technology theme- Plantation / Green taken up - Agroforestry	Dr.R.K.Bajpai
23.	29-08-20	CAPACITY BUILDING & TRAINING Green technology theme- Plantation / Green taken up – Horticultural crops	Dr.S.K.Pandey,
24.	31-08-20	CAPACITY BUILDING & TRAINING Green technology theme- Plantation / Green taken up – Medicinal & Aromatic crops	Dr. Gyanendra Tiwari & Dr. R.Shiv Ramakrishnan
25.	31-08-20	AWARENESS ADVISORY: Research & Farms : Pesticides recommend & banned by Central Insecticide Board & Registration Committee & Safe use of Pesticides	Dr.S.B.Das #
26.	31-08-20	AWARENESS ADVISORY: Green technology theme- Plantation	Dr.R.K.Bajpai #
27.	31-08-20	AWARENESS ADVISORY: Green technology theme- Plantation	Dr.S.K.Pandey#
28.	31-08-20	AWARENESS ADVISORY: Green technology theme- Plantation	Dr. Gyanendra & Dr.R.Shiv Ramakrishnan
29.	31-08-20	AWARENESS ADVISORY : • Civil construction / renovation work – Colleges, Research & Farms General Awareness	Er. S.S.Gour #

30.	04-09-20	CAPACITY BUILDING & TRAINING: Biosafety , Waste disposal	Dr. Kirti Tantwai
31.	11-09-20	CAPACITY BUILDING & TRAINING: Integrated Nutrient & Weed Management	Dr.P.B.Sharma & Dr.G.S.Tagore
32.	18-09-20	CAPACITY BUILDING & TRAINING: Integrated Management of Insect pests & mites & Diseases	Dr.S.B.Das & Dr.A.R.Wasnikar
33.	25-09-20	AWARENESS PROGRAMME: NABL guidelines for accreditation of laboratories	Dr.Sharad Tiwari