SHER-E-KASHMIR UNIVERSITY OF AGRICULTURAL SCIENCES & TECHNOLOGY OF KASHMIR

MAIN CAMPUS, SHALIMAR SRINAGAR (J&K) INDIA -190025

Holistic Agriculture Development Programme

PROGRESS REPORT 2024-25

HOLISTIC AGRICULTURE DEVELOPMENT PROGRAM

DIRECTORATE OF RESEARCH

Holistic Agricultural Development Program
Jammu and Kashmir

SKUAST-K
PROGRESS REPORT
2024-25

Directorate of Research

Sher-e-Kashmir
University of Agricultural Sciences
& Technology of Kashmir

Holistic Agricultural Development Program
Jammu and Kashmir

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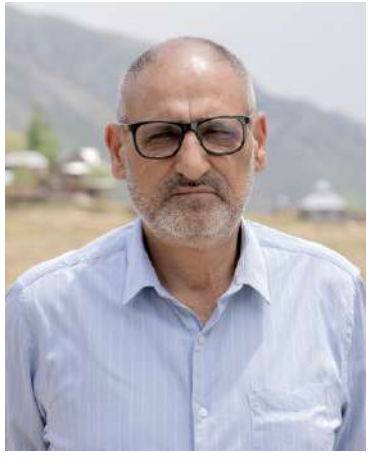
Foreword



Agriculture continues to be the backbone of Jammu and Kashmir economy and rural livelihood. Over the years, it has not only ensured food security but has also contributed significantly to income generation, employment, and inclusive growth.

Holistic Agriculture Development Project integrates ecological sustainability, social equity, and economic viability. It enhances environmental stewardship, promotes rural livelihoods, ensures food security, and fosters innovation. It also reflects the collective efforts of policymakers, scientists, extension workers, and farmers in strengthening resilience and competitiveness of Jammu and Kashmir agriculture in the face of climate change and global market dynamics.

Periodic Review provides an opportunity to assess the progress and the bottlenecks and gives an opportunity for timely course correction. This Progress Report provides a comprehensive overview of the sector's performance across various HADP Projects under SKUAST domain highlighting achievements, and progresses made since the inception of project. The report encapsulates progress in crop production, allied sectors, technology adoption, infrastructure development, and farmer welfare initiatives and finances involved.

I commend the team involved in preparing this report and hope it contributes meaningfully to informed decision-making and policy discourse.

Prof. Haroon R. Naik
Director Research

Holistic Agricultural Development Program
Jammu and Kashmir

Content

Holistic Agricultural Development Program
Jammu and Kashmir

A. Facilities Created

Physical progress

I. Seed and planting material

1. Strengthening of Seed Testing Lab at Division of Genetics and Plant Breeding
2. Tissue Culture facility for commercial Floriculture & exotic vegetables
3. Establishment of Fish feed mill and Trout Hatchery
4. Apple Root stock bank for an area of 1Ha with 30,000 plants of M-09
5. Diversified root stock bank with three root stocks viz M-09 T337, MM-111, MM-106 and a new mutant of M-09
6. MOET-IVF facility being established (Equipment purchased 30% civil works complete

II. Processing and Value addition

1. Processing and Handling Unit for Mushk Budji equipped with Modern Rice Mill and Rice Packing Machine at Khudwani & KVK, Kulgam
2. Establishment of Millet Threshing and Milling Unit at FoA, Wadura
3. Mustard oil Filter Press Facility in MRCFC Khudwani
4. Fur Article Development Facility
5. Carding cum Felting unit

III. Production facility

1. Silk worm Crop Improvement Laboratory
2. One Proto type Production Centre
3. Facility created for Research and Cultivation for High value Nutraceuticallignolytic (Saw dust) Mushrooms
4. Nano particle coating unit
5. Upgraded Poultry House

IV. Sustainable Agriculture Research Centres

1. Biofertilizer screening & Production Centre at Faculty of Agriculture Wadura
2. Biopesticide screening & Production Centre at MRCFC Khudwani
3. Bio-Analysis Centre at Faculty of Agriculture Wadura
4. Insect Bio Control Lab at SKUAST Shalimar.
5. Fungal/disease Bio Control Lab at SKUAST-K

V. Laboratory facilities

- Facility for Macro & Micro nutrient estimation in soil, leaf and water.
- Soil Testing and Molecular Breeding labs upgraded at DARS, Budgam
- Soil Micronutrient analysis Facility Created.
- Remote Sensing and GIS Laboratories established

B. Centre Of Excellence

1. CoE on Herbal Technology at FoF, SKUAST-K
2. CoE on Integrated Farming System at FoA. Wadura
3. CoE in Reproductive Animal Biotechnology at MLRI Mansbal
4. Market Intelligence Cell cum Agricultural Branding Centre
5. Cyber Extension centre established at SKUAST-K Shalimar

C. Mechanization And Automation

1. AI and ML lab at College of Ag. Engineering Shalimar
2. Five custom hiring centres in five districts (KVK Anantnag, Kulgam, Ganderbal, Budgam, Pulwama)
3. Mechanization of 08 University research farms viz. Shalimar farm, DARS Budgam, MLRI Manasbal, MRCFC, Khudwani, FOA, Wadura, MRCS&G, Manasbal, FOF, Benehama, AARC, Pahnoo
4. Mechanization for processing of apple Pruned wood for use in mushroom cultivation
5. Automatic Media Filling Machine, Walk-in Cold Storage in commercial floriculture.
6. Automation of three (03) protected structures for cultivation
7. Mechanisation of 3 Ha Nursery/mother block of fruit crops.
8. AI based and IoT driven operations in HD Apple, vegetable and Livestock

D. Controlled Structures

1. High Tech IoT Powered Ornamental Nursery with automation of operations
2. 20 Semi High Tech Poly Houses established at 10 KVKs of Kashmir valley
3. Three (03) Sensor based automated protected cultivation structures (480m2) for Fruit plants
4. High Tech Protected cultivation setup
5. IoT based Walk in Growth chamber at Faculty of Horticulture

Technical Progress

A. VARIETIES RELEASED

Ten varieties developed by SKUAST K were released by State Variety Release Committee on 26.03.2024 which include - RICE, 3 no (Shalimar Rice-7, Shalimar Rice-8, Shalimar Rice-9), MAIZE, 1 no (Pusa Shalimar Maize Hybrid-1), COWPEA, 1 no (Shalimar Cowpea-3), PEA,1 no (Shalimar Pea-2), RAJMASH, 1 no (Shalimar Rajmash-5), SOYBEAN (Shalimar Soybean-3), WALNUT, 2 no (Shalimar Walnut-1, Shalimar Walnut-2).Varieties besides being high yielding are location specific and climate resilient.

B. GERM PLASM BANK

1. Medicinal and Aromatic plant Germ plasm Bank at FoF, SKUASTK
2. New silk worm genotypes to enhance the current germ plasm for the development of new breeds/hybrids for Jammu and Kashmir.
3. Mushrooms strains imported from Japan for their assessment along with local strains for suitability under local environment.
4. 300 accessions in maize, 250 in pulses and 75 in fodder oats & 1000 accessions in rice maintained.
5. 1.5 lakh propagules produced under commercial floriculture
6. Walnut/Almond germ plasm maintained over an area of 1Ha
7. Developed a new germ plasm bank of Apple with 3333 plants

C. SEED AND QUALITY PLANTING MATERIAL

a) Seed

1. 23.5 MT of Breeder Seed. 1000 MT FS & 250 MT TLS
2. 200 quintal of quality plant material of Shallot
3. 40q quality seed distribution of fodder oats

b) Planting material

1. 4 ,000 plants of Walnut, Apple , Almond and other temperate fruit crops
2. 10,000 plants of priority species of MAPs

c) Animal Breeds developed and distributed (Sheep, Poultry, and Cattle etc.)

1. 40,000 poultry birds of improved breeds
2. 264 elite germ plasm of Corriedale (80), Kashmir merino (80), FecB (10) , Bakerwal (20) local goat (40) Gurez(30), Polled Dorset(4).

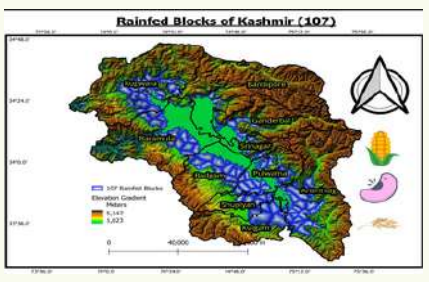
D. SUSTAINABLE AGRICULTURE PRODUCTS

1. Biofertilizers (1,600 litres)
2. Biopesticide (896 litres)
3. Vermicompost (2,000 qt.)
4. Vermiculture (1 quintal)
5. Vermi wash (500 litres)
6. Phermones (4,000)
7. Sticky traps (3,000)
8. Anthocorid bug release in cherry (1,000)
9. House fly pheromone trap (500)

E. SOFT WARE AND KKG

1. Software solution for KKG and Multi crop decision support system developed through BISAG.
2. Android App for Poultry Farmers developed.
3. Developed User Interface of Market Intell App For decision support system

F. TECHNOLOGY AND INNOVATION



1. Nano-Based Artificial Diet for Silkworm, Bomby xmoriL
2. Cultivation of high value edible mushrooms Viz., Enokeii, King Oyester, Shiitake and Ganoderma using pruned apple wood as base substrate.
3. IoT based module for automation of ornamental nursery commissioned.
4. Biofertilizer and Biopesticide 19 accessions identified & submitted to Gene Bank.
5. Land use and Land Cover MAP at district level prepared (10 Districts)
6. Propagation of walnut under sensor based protected structures with higher success rate (75%.)
7. AI based and IoT driven operations in Apple (2 ha.) vegetable (2 ha.) and Livestock (1 unit)
8. Validation of 7 sensors at field level.

Patents Granted 2023-24 (file still to be completed)

Number of Patents granted during 2023 to 2025	
Year	**No . Of Patents Granted**
2023	6
2024	38
2025	40
Overall Total Patents Till Now	**84**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डिजाइन सं. / Design No. : 462567-001
तारीख / Date : 17/06/2025
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प्रमाणित किया जाता है कि संलग्न प्रति में वर्णित डिजाइन जो MULTI-PURPOSE PETRI DISH FOR MICROBIOLOGICAL STUDIES से संबंधित है, का पंजीकरण, श्रेणी 24-02 में 1.Dr. MANSOOR NABI 2. Dr. MD. ISFAQUL HUSSAIN 3.Dr. SABIA QURESHI 4.Dr. MIR NADEEM HASSAN 5.Dr. ZAHID AMIN KASHOO 6.Dr. IQRA HUSSAIN SHAH के नाम में उपर्युक्त संख्या और तारीख में कर लिया गया है।
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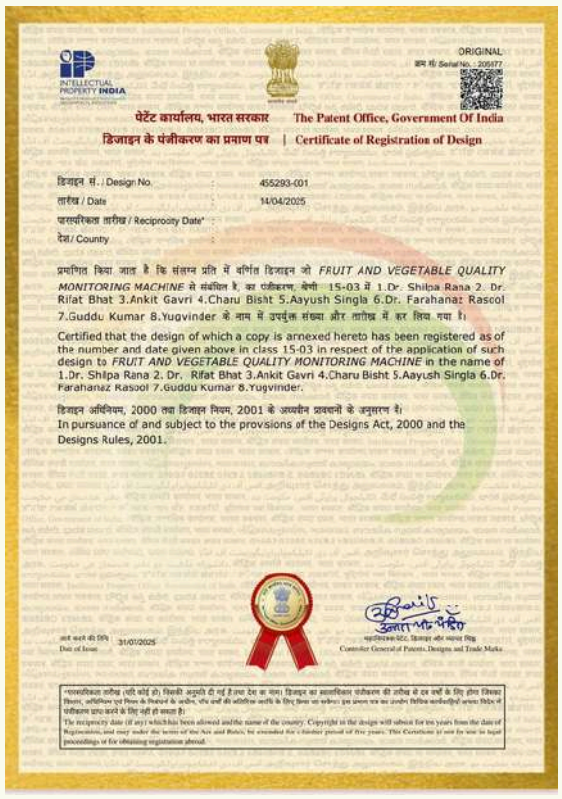
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तारीख / Date : 14/04/2025
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डिजाइन सं. / Design No. : 453609-001
तारीख / Date : 29/03/2025
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Capacity Building and Skill Development (HADP)

S.NO	Name of Training (HADP)	Trainings (No)	Trainees (No)
1	Farmers training	43	684
2	Rural youth	35	900
3	Capacity building for line departments	40	1200
4	Awareness programmes	25	3000
	Total	**143**	**5784**

Skilling for entrepreneurship

S.NO	Nameof Training	Trainings (No)	Trainees (No)
1	MSME	495	19945
2	STRY	38	1656
3	Training for Extension Functionaries	17	444
4	License courses	30	3100

HADP- 1
Development of Seed and Seed Multiplication Chain Unit

A. Physical

Activity		Outcome
1	Establishment of Seed Processing Plant at MRCFC, Khudwani	• Production and processing of 150 quintals of Breeder Seed and 800 q of foundation seed • Improvement in checking quality parameters of Breeder /Foundation Seed and DUS Characters of Seed
2	Establishment of Millet Threshing and Milling Unit at FoA Wadura	
3	Establishment of Seed Testing Lab at FoA Wadura	

B. Researchand Development (R&D)

Activity	Outcome
• Development of climate resilient, high yielding and nutrition rich crop varieties • Production of Breeder/ Foundation Seed (100% completed)	• Ten new varieties put in Seed Chain after being notified by Central Seed Sub-committee, New Delhi • 8 new varieties developed and ready for release by State Varietal Release Committee • Improvement of SRR to 20 and 30% in Self and Cross pollinated crops, respectively • Achieving desirable Variety Replacement Rate Seed Multiplication Ratio all the crops.

C. Human Resource Development (HRD)

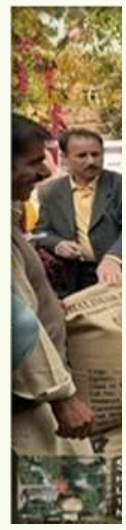
S.No	Activity	No	Broad Theme	No of trainees
1	Farmer/Rural youth Trainings	7	• Quality Seed Production in maize, rice. • Efficient Production Technology in pulse and for age crops	800 Trained

D. Financial

Allotted	Released	Expenditure	%utilization
200.0	200.0	147.0	>73

Glimpses of major research activities

Glimpses of major capacity building activities



HADP- 02
Promotion of Niche Crops in UT of J&K

A. Physical Infrastructure

Activity	Outcome
Establishment of processing and handling unit for Mushkbudji	Processingand handling of 500 tonnes of Mushkbudji benefitting 1050 farming families for quality milling and brand promotion
Establishment of processing and handling unit for Red Rice	Processingand handling of 300 tonnes of Red Rice benefitting 800 farming families for quality milling and brand promotion
Establishment of processing and handling unit for Chilli	Facility shall be equipped for extraction of seed and making Chilli powder from 350tonnes of Kashmir Chilli.

B. Research and Development (R&D)

Activity	Outcome
Collection and evaluation of germplasm	• 30 germ plasm lines of Saffron are under evaluation for desirable traits for identification of promising lines • 25 accessions of Kalazeera are under evaluation for identification of seed & tuber derived promising genotypes
Development of Markers of Niche crops for seeking GI	• DUS, characterization has been completed. • GI tag has been granted for Saffron and Mushkbudji. Applications for Kalazeera, Shallot, Kashmiri Chilli and Red Rice have been submitted for award of GI tag
Standardization of production technology of Niche Crops	• Experiments conducted on Saffron, Kalazeera, Muskbudji, Red Rice and Chilli and follow-up trials to continue in the next year for validation and confirmation of the results.
Devising Package of Practices for Shallot	• Field experiments on Shallot conducted for development of Good Agriculture Practices. Follow-up trials to be undertaken in subsequent years to confirm and validate the findings.
Conduct of OFT's for Shallot	• 38 quintals of Shallot planting material distributed among farmers

C. Human Resource Development

Activity	No. of Trainings	Broad Theme	No of trainees
Conduct of trainings for Farmers and Rural Youth	14	Promotion of Niche Crops in target areas	68
Trainings for Field Functionaries/ KVKs	06	Capacity Building of Field Functionaries of target districts	260

D .Financial

Allotted	Released	Expenditure	% utilization of released amount	Actual Payment
150	172.23	172.23	100%	172.23

Glimpses of major research activities

Glimpses of major capacity building activities

HADP – 03
Promotion of Vegetables /Exotic Vegetables

A. Physical

S.NO	Activity	Outcome
1	Establishment of Hi-Tech Germplasm Screening Facility.	Germplasm screening facility under controlled conditions for varietal development
2	Lab upgradation	1. Upgraded Potato Tissue Culture lab upgraded 2. Standardization of protocols for potato varieties.

B. Research and Development (R&D)

Activity	Outcome
On Farm Trials/Varietal Development	• 40 OFTs conducted across various districts of Kashmir on different vegetable crops. • Shalimar Kashmiri Chilli-1 (Kashmiri Chilli variety) notified. • Shalimar Brinjal Hybrid-3 (Brinjal hybrid) notified. • Several promising lines identified in various vegetable crops (Cherry Tomato, Carrot, Turnip, Brinjal, Chilli etc.)

C. Financial

Allotted	Released	Expenditure	%utilization
85.00	68.00	68.00	100 %

Glimpses of major research activities

HADP – 04
Strengthening Agricultural Marketing in UT of J&K

A. Physical

S.No.	Activity	Outcome
1	Market Intelligence Cell (80% Completed)	Decision Support System; Centre of Excellence and Policy oriented research
2	Agricultural Branding Centre (80% Completed)	Brand Building, promotion and Development Felicitation Centre

B. Research and Development (R&D)

S.NO	Activity	Outcome
1	Price Forecasting	• Better decision support system for marketing & value realization • Rationalization of commodity distribution over space and time • Reduction in gluts and price instability • Focused insights for commodity outlooks • Enhanced outreach and value realization of niche commodities
2	Market Research	
3	Branding Activity	

C. Human Resource Development (R&D)

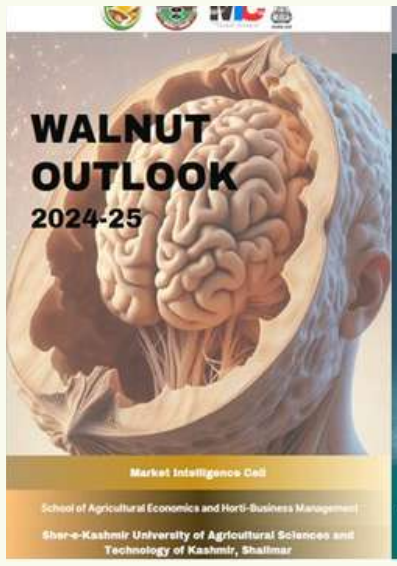
S. No.	Activity	No.	Broad Theme	No of trainees
1	Farmer/Rural Youth Trainings	23	Sensitization cum awareness program on Farmer Producer Brand Development	235 (Members of FPO's/Self Help Groups/Progressive Farmers/Individual Entrepreneurs)
2	Rural Business & Service Hubs: Strategies for Successful Startups	04	Strengthening market linkages and value-chain integration for rural startups.	65 (RBSH Beneficiaries)
3	Brand Bizz Fest	01	Promotion of Brands mentored by Agriculture Branding Centre (ABC)	33 Members

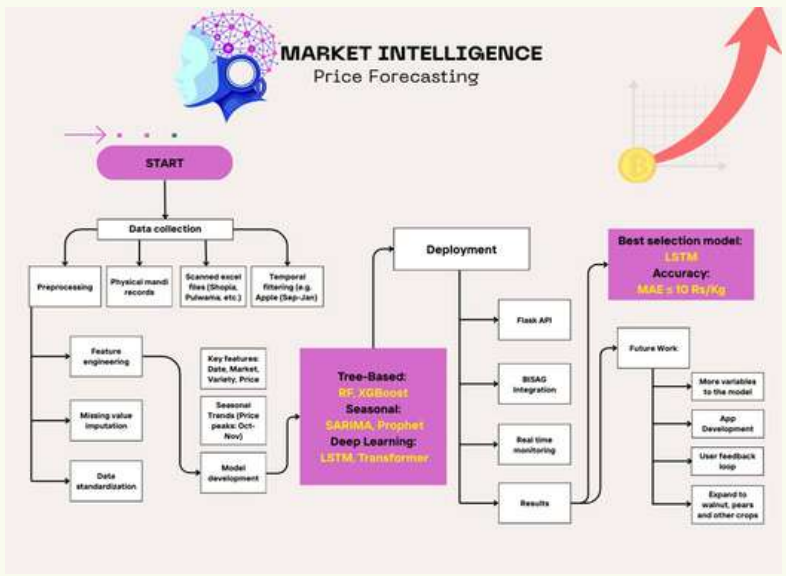
D. Financial

S.No.	Allotted	Released	Expenditure	% Utilization
1	359	174.50	105	60

Glimpses of major research / infrastructure activities

2





Glimpses of major capacity building activities

HADP-05
Promotion of Medicinal and Aromatic plants cultivation on commercial basis in the UT" of J&K

A. Physical

S.NO	Activity	Outcome
1	Establishment of MAP Germplasm Bank	• MAP Germplasm bank established at Faculty of Forestry.
2	Establishment of Centre of Excellence on Herbal Technology at Faculty of Forestry	• COEHT established at Faculty of Forestry. • Molecular and chemo profiling Labs established.

B. Research and Development (R & D)

Activity	Outcome
Survey and collection of prioritized MAPs species from different sources.	• 32 accessions of 3 prioritized species (*Saussureacostus*, *Picrorhizakurroa*, and *Valeriana jatamansi*) collected from 12 different locations across the Kashmir Valley • All collections taxonomically validated and subsequently submitted to the National Bureau of Plant Genetic Resources (NBPGR) and the KASH Herbarium, University of Kashmir for herbarium documentation and long-term reference. • Accessions conserved in a germplasm bank at Faculty of Forestry-SKUAST-K, for further growth and development studies and identification of elite germplasm.
Molecular and chemo profiling of priority MAP species.	• Molecular authentication of selected accessions through DNA barcoding done. • Qualitative analyses of all the 32 accessions completed and quantitative analysis is under progress. • Antimicrobial assays done for 10 selected accessions. • Isolated pure compound (picroside-I) from *Picrorhizakurroa.*

C. Financial (Lakhs)

Allotted	Released	Expenditure	%utilization
400.00	320.00	320.00	100 %

Glimpses of major research / infrastructure activities

HADP-06
Promotion of Beekeeping

A. Physical

S.NO	Component	Outcome
1	Establishment of Bee breeding Centre for climate smart bees	• Bee breeds resilient to climate change for enhanced productivity and sustainability in beekeeping. • Centralized facility for research and development of genetically superior bee species tailored to local climatic conditions
2	Establishment of Disease Diagnostic & Quarantine centre	• Monitoring, diagnosis, and management of bee diseases and prevention ofr outbreaks and protect colonies. • Healthy bee populations by providing quarantine facilities to control the spread of diseases and pests.
3	Development of Quality Nucleus Stock Centres	• Breeding high-quality bee stocks to ensure the availability of robust and disease-resistant colonies for beekeepers.

B. Research and Development

S.NO	Component	Outcome
1	Establishment of BBC for climate smart bees	• Production of Resilient Climate smart bees
2	Establishment of Disease Diagnostic & Quarantine Centre	• Identification, and timely diagnosis • Management of emerging diseases and pest problems.
3	Development of Quality Nucleus Stock Centres	• Production of quality Queen bees (300/year) • Increase in the productivity (25%) through pollination and also increase in honey production (20%)

C. Financial (Lakhs)

Allotted	Released	Expenditure	% Utilization
200	161.50	161.17	99.79 %

Glimpses of major research / infrastructure activities

Glimpses of major capacity building activities

HADP 07
Technological Interventions to Strengthen Sericulture in UT of J&K

A.Physical

Physical Activity	Outcome
Establishment of Silkworm Crop Improvement Laboratory (85% Completed)	• The Silkworm Crop Improvement Laboratory as a Centre of Excellence to: • Develop high-yielding, climate-resilient silkworm breeds. • Conserve and curate elite silkworm germplasm for future breeding needs. • Build human resource capacity through extensive training of farmers, officials, and youth in modern sericulture and seed production practices. • Enhanced silk productivity and income generation in the UT of J&K.

B. Research and Development (R&D)

Physical Activity	Outcome
Genetic Resource Enrichment	• 32 geographically divergent silkworm genotypes procured from various national research institutes for germplasm enrichment. • 30 breeding lines isolated for silkworm breed development.

C. Financial

Allotted	Released	Expenditure	% Utilization
250.00	125.00	100.87	111%

Glimpses of major research activities

HADP-08
Promotion of Nutricereals (Millets) in UT of J&K

A. Research and Development (R&D)

S.NO	Activity	Outcome
1	Varietal characterization	One Genotype each in Finger and Foxtail millet identified for Minikit testing
2	Development of new Millet varieties	One test entry of Finger millet revealed a yield potential of 25 q per ha in multi-location trials.

B. Human Resource Development(HRD)

S.No	Activity	No	Broad Theme	No of trainees
1	Farmer/ Rural youth Trainings	2	• Revival of Millet cultivation in traditional areas • Growing millets in non-traditional areas • Quality Seed Production in millets	200 rural youth
2	Line Departments/ KVKs	2	• Millets for Nutritional Security of J&K • Demonstrations of Millet cultivation in non-traditional areas of KVK, Shuhama, KVK, Srinagar and FoA Wadura, Sopore.	80 Department Officers/ Officials

C. Financial

Allotted	Released	Expenditure	%utilization
50.0	40.0	20.70	>50%

Glimpses of major research activities

HADP-09
Farm Mechanization & Automation

A.Physical

S.NO	Activity	Outcome
1	Mechanization of University Research Farms (90 % Completed).	• Higher Productivity and Efficiency. • Reduction in cost of by 20-25 % • Increase in productivity by 5-10% • Decrease in workload on farm labours upto 60% • Availability of farm machinery to small and marginal land holding farmers • Saving of operational time of farm operations by 60% • Timeliness of farm operations • Reduction in drudgery of farm workers.
2	Establishment of 10 Farm Machinery Custom Hiring Centers across 10 districts (95 % Completed).	

B. Research and Development (R&D)

S.NO	Activity	Outcome
1	Establishment of Agricultural Machinery Prototype Production Centre (60 % completed)	• State of the Art Prototype Production Centre for development of Region-Specific Farm Machinery • Customization of Farm Machinery/equipment's suitable for local crops, soil and terrain. • Prototype Fabrication and Testing
2	Design and development of new & innovative region -specific farm equipment/machineries	• 05 prototypes developed • Availability of region- specific farm equipment/machines to the users • Reduced in cost of cultivation and drudgery

C. Financial

Allotted	Released	Expenditure	% Utilization
400.0	320.0	319.99	99.99

Glimpses of major research / infrastructure activities

HADP-10
Year Round Mushroom Production

A.Physical

Activity	Outcome
• Established facility for production of saw dust mushrooms, and facility for large scale spawn production.	• Research cum training center for efficient use of pruned apple wood, almond and walnut shells for mushroom production. Support to pilot scale mushroom entrepreneurs using Noval technology.

B. Research and Development (R&D)

S.NO	Activity	Outcome
1	Efficient Mushroom cultivars (from local and foreign resources)of shiitake, Enokeii, King oyster	• Promising cultivars for cultivation of Enokeii, King oyster, and shiitake identified for possible release at UT level. • Package of practice for local entrepreneur for industrial production of shiitake, Enokeii, King oyster, and Ganoderma.
2	Use of pruned apple wood for cultivation of shiitake, Enokeii, King oyster,and Ganoderma. Production technology development	
3	Research trials shiitake, King oyster, Elm oyster, Enokeii and shimji.	• Package of practice based on use of locally available woody agro wastes
4	Patents with respect to Noval technologies (Substrate recipe based on apple wood) filed for shiitake, enokeii, and king oyster	• 03 patent applications published, 03 more under process

C. Financial

Alloted	Released	Expenditure	%utilization
20.00	10.00	10.00	100%

Glimpses of major research activities

HADP-11
Promotion of oilseeds

A.Physical

S.NO	Activity	Outcome
1	Quality Seed Analysis Laboratory	One lab. established for quality analysis

B. Human resource Development (HRD)

Activity	Number	
Conduct of training for officials of line Department & farmers	07	• 100 Officials of Line Department • 250 farmers

C. Research and Development (R&D)

Activity	Outcome
10 Research trials	• Two varieties KBS-63 and KBS-100 are under final stage • 2 new varieties of brown sarson & one variety of Gobhi sarson. • Package of practice for newly developed varieties completed
Cluster Demonstration	• The centre successfully conducted 200 site specific demonstrations during rabi 2024-2025 This will greatly increase the Seed replacement and varietal replacement rate in oilseed, thereby increasing production .& productivity of the crop.
Quality Seed Production	• 03.0q Breeder Seed of Shalimar Sarson-2 • 30.0q Foundation seed of Shalimar Sarson-2

D. Mechanization and Automation

Activity	Expected outcome (2024-2025)
Mustard oil filter press	Fully functional for oil extraction

E. Varieties Released

KBS-63	KBS-63 along with package of practices will be released as new brown sarson variety.

F. Financial

Allotted	Released	Expenditure	%utilization
27.2Lakhs	27.2Lakhs	27.2Lakhs	100%

Glimpses of major research activities

Glimpses of major Capacity buildings activities

HADP-13
Adoption and Promotion of Integrated Farming System (IFS)/Integrated Livelihood System (ILS)in UT of J&K (2024-25)

A. Physical

S.NO	Activity	Outcome
1	Establishment of HDP Apple orchard with trellis and drip irrigation system	l Enhancing the productivity and profitability of honey(2Q= Rs. 2,00,000/annum) for higher market value for farmers
2	Establishment of Apiary and honey processing unit	l Enhancing productivity and profitability by regular supply of Milk (20,000 ltr=10 lakh/annum) &Eggs (90,000.00= 6.3 lakh /annum)
3	Establishment of poultry and livestock/dairy unit	l For production of qualityspawn(5Q= Rs. 50,000/annum) and Mushroom (50 kg= Rs. 10,000/annum)for growers
4	Establishment of mushroom and spawn production unit	l Centralised facility for conducting farmer trainings, awareness program, project review meetings and knowledge dissemination
5	Establishment of Conference hall under center of excellence on IFS at FoA, Wadura	Strengthened farmer-scientist interatction

B. Human Resource Development (HRD)

S. No	Activity	Number	Broad theme	No of trainees
1	Farmer/Rural Youth Training	4	Integrated farming, resource recycling, zero waste production system	120 Trainees
2	Workshop	1	Stakeholders like Scientists, Department officers/Officials / Participatory farmers etc	60 officers

C. Research & Development (R&D)

Activity	Outcome
Upgradation of IFS model atFoA, Wadura	• Improved resource use efficiency leading to cost savings for farmers, enhancing profit margins • Increased productivity from 9 t/ha to 15 t/ha which leads to food security and national economy development
Standardisation and Demonstration of IFS units in different districts of Kashmir valley including front line extension activities	• Area specific modules for sustainable income • Year-round source of income • Diversity of products and enterprises • Circular economy/Circular agriculture

D. Financial Achievement

Sanction	Release	Expenditure	% Expenditure
1.22 Cr	1.21 Cr	1.22	100%

E. Mechanization and Automation

Activity	Expected Outcome
Tractor mounted boom sprayer in IFS unit at FoA, Wadura	Reduced cost of cultivation Saving of labour and time Farm Mechanization Improved Crop health and yield

Glimpses of major research / infrastructure activities

Glimpses of major Capacity buildings activities

HADP-14
Promotion of Floriculture

A.Physical Activity

Activity	Outcome
Upgradation of Tissue Culture Lab	• Development of tissue culture protocols in Lisianthus, Gerbera, Carnation, Gypsophila, Petunia, Rose, Orchids, Geraniums, Apple, Cherry.
Model Floriculture Farm	• Development of value added products like dry flower bouquets and arrangements, wall hangings, potpourris, floral frames, scented candles, resin art etc • Facilitated year- round availability and quality management of bulbs through controlled storage and programmed sprouting
IoT driven automated nursery production with Eco Pot Machine	• Standardisation and development of propagation protocol for 20 hard to root high value floriculture/landscape species

B.Human Resource Development (HRD)

Activity	Outcome
80 trainees from districts of Anantnag, Srinagar, Kulgam, Ganderbal and Budgam	Capacity building, knowledge sharing and exchange among Scientist, Extension personal/ Practicing farmers

C. Reseach and Development (R&D)

Activity	Outcome
Standardised propagation through cuttings in ivy, tradescantia, succulents, maple, geraniums, chrysanthemum, roses, hypericum, berbers, scented verbena, aucuba etc	2 lakh rooted cuttings produced
Successful development of tissue culture protocol in Lisianthus, Orchids, Gypsophilla, Gerbera	Production of 2000+ plants
Development of pot filling media from Dal weeds and other locally available organic substrates for Ecopot Filling Machine	50000 plants produced through utilisation of locally available substrates
Development of remote data cloud	• Real time monitoring of crop, climate and storage conditions. • Provides centralised data storage and analytics for informed decision making • Supports precision farming, traceability and market forecasting to enhance productivity and profitability
Prototype of virtual sale portal for model flower farm	Development of multiple revenue streams in model flower farm or pots, dried flower products, value added products, bulbs, seeds, nursery plants for Garden Efficiency Centre

D. Financial

Allotted	Released	Expenditure	%Utilisation
80.00	64.00	63.63	99.42

Glimpses of major research / infrastructure activities

Glimpses of major Capacity buildings activities

HADP-15
Rainfed Area Development

A. Physical

S.NO	Activity	Outcome
1	Establishment of Centre of excellence for Rainfed Agriculture	• Authentication (Morphological and physiological trait recording) • Validation at farmers field using standard package of practices • Standardization of agro techniques & harvesting protocols of elite varieties • Creation of plant precision phenotyping platform for identifying trait specific germplasm • IFS module for sustainable agriculture production in Rainfed ecologies
2	Stress Resilience, Resource Mapping and Crop Improvement Facility at DARS, Rangreth	
3	Establishment of IFS unit at DARS, Rangreth	

B. Human Resource Development (HRD)

S.No	Activity	No	Broad Theme	No of trainees
1	Farmer/Rural youth Trainings	10	Seed Production	400 Trainees
2	Line Departments/ KVKs	4	First-hand Information on IFS/INM/IPM/IDM	100 Department Officers/ Officials Capacity Building

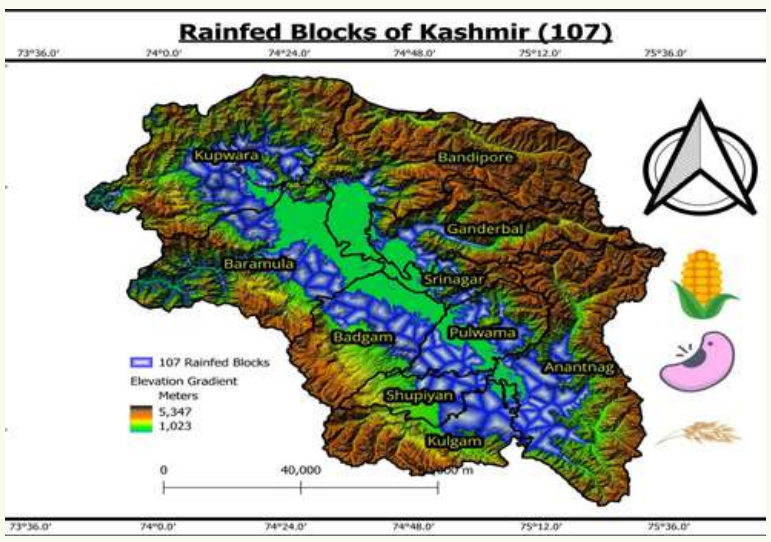
C. Research and Development (R&D)

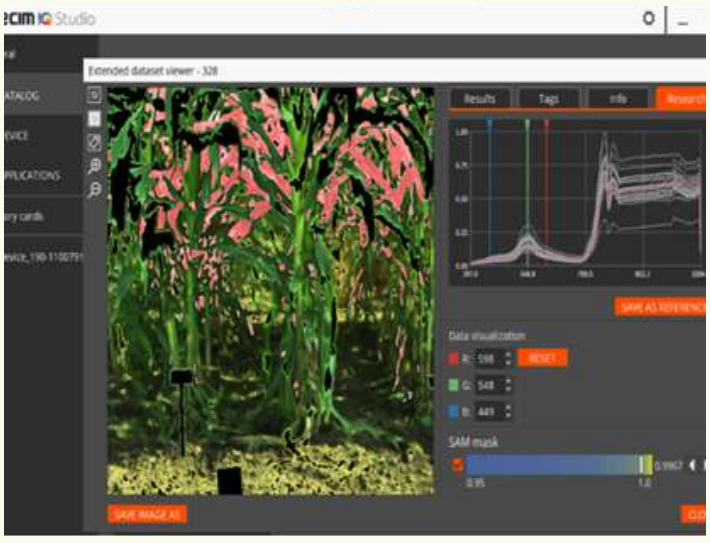
Activity	Outcome
Ameleuration of issues facing rainfed agriculture	• Twelve Crop varieties released (Five at National Level) in Maize, Soybean, Field pea, Forage Oats and Common Bean • Resourse maping of rainfed blocks (100) • 300 quintal seed of climate resilient and nutritionally dense maize, forage and pulse varieties produced and deployed in rainfed niches covering an area of 800 ha. • 2000 samples of mandated crops analyzed for physiological, molecular and biochemical traits • Package of Practices developed for Maize , Pulses and Potential crops • 8 M.Sc and 4 Ph.D students completed their degree programmes utilizing facilities created in the project • 16 Research papers and 5 manuals published on various aspects of rainfed farming. • Fourteen capacity building programmes conducted for various stakeholders.
Establishment of climate resilent agriculture facility	
Crop diversification	
Capacity building	

D. Financial

Allotted	Released	Expenditure	%utilization
500	400	320	80

Glimpses of major research activities





Glimpses of capacity building activities

HADP-16
Alternate System of Agriculture for Sustainability

A.Physical

Activity	Outcome
Establishment of • Biofertilizer Production Centre. • Biopesticide screening cum Production Centre (commissioned) • Bio-Analysis Centre (commissioned)	**Biopesticide Screening Cum Production Cum Incubation Facility** • Commissioned with an annual production capacity of 10,000 liters @₹500 per liter, valued at ₹50 lakh. (Strain used: *Trichoderma harzianum* / *Trichoderma viride*. (Location MRCFC Khudwani Kulgam) **Bio-fertilizer Screening Cum Production Cum Incubation Facility** • Scheduled for commissioning by the end of September, with a capacity of 40,000 liters, covering an estimated area of 25,000 hectares. 20-25 % Fertilizer Saving amounting 2 CR Annually ; Location FoA Wadura Sopore • Capacity to Produce 400 MTof Solid Biofertilizers **Bioanalysis Centre** • Commissioned with a capacity to analyze 3000 Soil, Crop and Water samples/yr.

B. Research and Development (R&D)

Activity	Outcome
46 On Farm Research Trials laid throughout the valley	• On-Farm Research and Trials (OFRT): 46 OFRTs laid out across various crops and agro-ecological zones. • Development of organic packages of practices for field crops, pulses, and vegetables is in progress. • Books, Research papers, Review Papers, Compendium Published/Under Process

C. Human Resource Development

S.No	Activity	No	BroadTheme	No of trainees
1	Farmer/Rural youth Trainings	12	Organic Input Production Certification Branding Marketing.	300 Trainees (900 training days) 05 Entrepreneurs.
2	Line Departments/ KVKs	5	First hand Information on Organic Farming Certification/Marketing	125 Department Officers/ Officials Capacity Building (625 training days)
3	National Workshop	1	Stake holders like Scientists, Department officers/Officials/Participatory farmers etc	350 Scientists/Officers/ Farmers (700 farmer days).

D. Financial

Allotted	Released	Expenditure	%utilization
400.00	320.00	185.40	57.93

Glimpses of major research / infrastructure activities

Glimpses of major Capacity buildings activities

HADP-17
Sensor-Based Smart Agriculture

A. Physical

Activity	Outcome
Creation of ecosystem for smart agriculture by upgradation of different labs 1. AR-VR Lab, 2. Fab lab, 3. Sensor Lab (Under progress)	• Unified ecosystem that accelerates the adoption of smart and precision farming technologies. • Immersive simulations for virtual training and skill development in smart farming practices. • Rapid prototyping and customization of affordable agri-tech solutions tailored for local farming needs. • Testing, calibration, and integration of agricultural sensors for reliable field deployment.

B. Research and Development (R&D)

Activity	Outcome
• Developing Algorithms for big data analytics for remote operations of IoTs • Standardization of AI based and IoT driven operations in Apple, Vegetable, Livestock and Polyhouses	• Smart sensors deployed at SKUAST-K Wadura Campus, KVK Budgam, KVK Shopian, and KVK Kulgam are intended to enable real-time data collection from high-density apple orchards, vegetable fields, and polyhouses, ensuring timely interventions across diverse agro-climatic conditions of Kashmir. • Commissioning of a solar-powered micro-irrigation system is under process at SKUAST-K to enable sustainable and energy-efficient water management. • Demonstration of scalable automation models. • Supporting more efficient and accurate irrigation scheduling. • Lower water and fertilizer usage (40–50%) • Enhanced productivity and resource use efficiency (50–80%) through site-specific and data-driven predictions.

C. Human Resource Development (HRD)

S.No.	Activity	Broad Theme	No of trainees
1	Workshop	• IoT Based Sensor Network • Hyperspectral Camera Training • NGS Data Generation and Analysis • Application of AI in Agriculture • AI Application for Smart Livestock • AI in Protected Cultivation	• 170 Trainees; • Facilitating knowledge sharing and exchange among scientists, researchers, and other stakeholders to promote innovation and collaboration in smart agriculture.
2	Training	Revolutionizing Agriculture with AI	30 Line Department Officers/Officials

D. Financial

Sanction	Released	Expenditure	% Expenditure
880	880	880	100%

Glimpses of major research / infrastructure activities

Glimpses of major Capacity buildings activities

HADP - 18
Minimization of Pesticide Use in Agriculture

A. Physical

Activity	Outcome
Mechanisation of cluster orchards	Reduction in unnecessary use of pesticides
Establishment of cluster orchards at Jungalnad, Pulwama and Kultreh, Budgam	

B. Research and Development (R&D)

Activity	Outcome
Research & Development for PHI estimation	Safe use of 22 pesticide in future
Estimated PHI of 22 pesticides	Safe food and health

C. Human Resource Development (HRD)

S.No.	Activity	No.	Broad Theme	No of trainees
1	Trainings	1	Bio pesticide/ Bio-stimulant	30 trainees
2	Awareness programmes	15	Integrated disease/pest management in apple	1301 growers

D. Financial

Alloted	Released	Expenditure	utilization%
680	680	636	93.52

Glimpses of major research / infrastructure activities

Glimpses of major capacity buildings activities

HADP-19
J&K Soil And Land Resource Information System For Planning And Soil Health

A. Physical

Activity	Outcome
Establishment of Soil Laboratories (06 Nos)	State of art facilities for soil, plant, water, fertilizer, pesticide etc., analysis
Soil Survey	Crop-land suitability map generated for Paddy and Apple for district Pulwama and Budgam

B. Research and Development (R & D)

Activity	Outcome
• Soil Data Collection and Processing • Crop Site Suitability Analysis	• Data base of more than 10 soil parameters generated at 1:10000 scale • Developed interactive web app GIS-based Soil Information System • Generated 30 years time-series land use land cover maps of J&K • Developed rice and apple crop suitability map

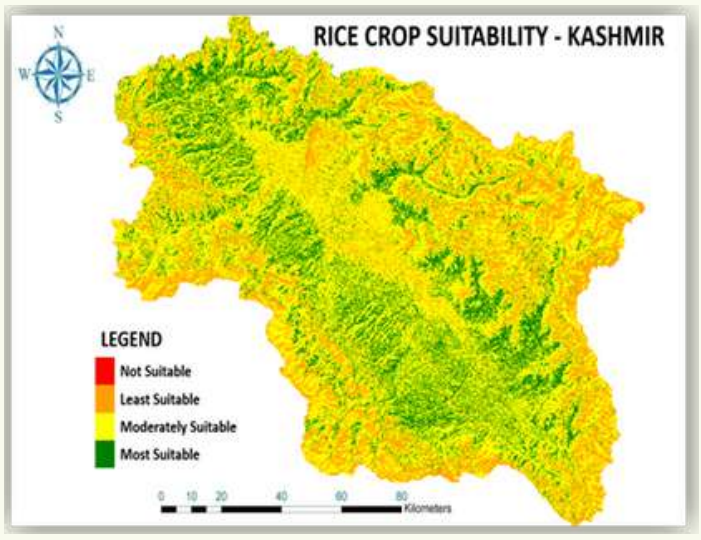
C. Human Resource Development (HRD)

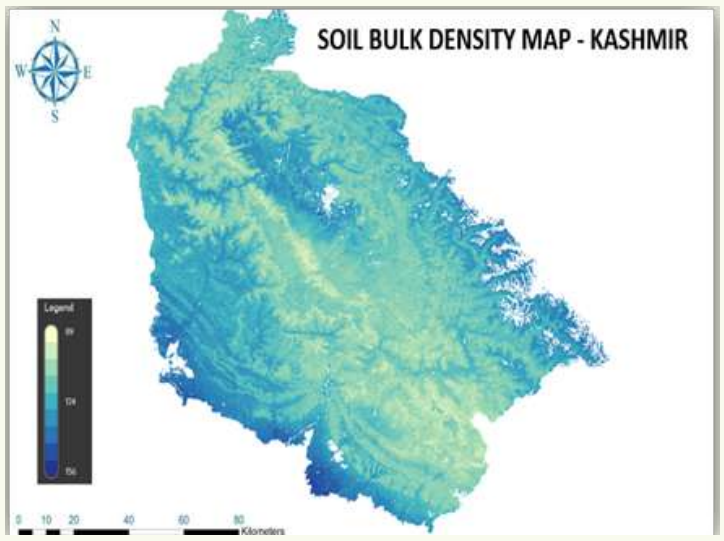
	Broad Theme	No of trainees
Farmer/ Rural youth Trainings/Demonstrations	Remote Sensing & GIS for Agriculture and Urban planning in J&K	100 Stakeholders

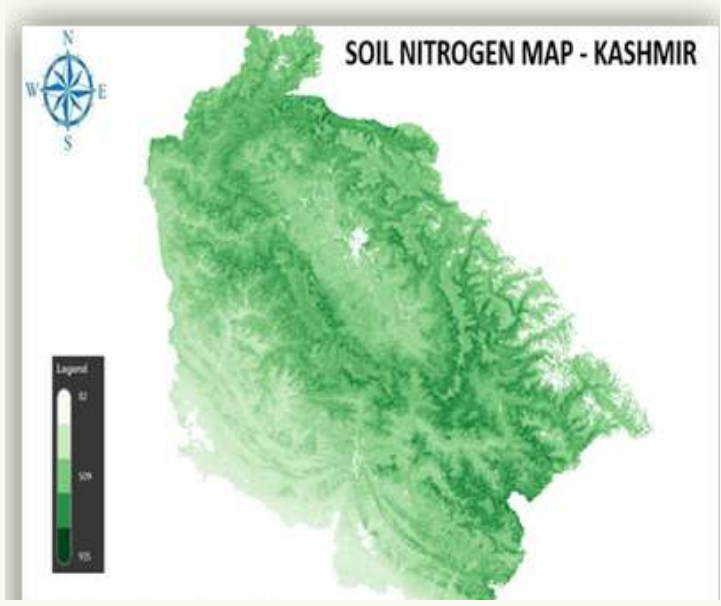
D. Financial

Allotted	Released	Expenditure	% utilization
1329.00	1063.20	1063.19	100.00%

Glimpses of major research / infrastructure activities







Glimpses of major capacity buildings activities

HADP-20
Innovative Extension Approaches for Promoting Agriculture in J&K

A. Physical

S.NO	Activity	Outcome
1	Kissan Khidmat Ghar: 2000 panchayats Identified; 500 being established in Phase-I.	• One-Stop Service Centre providing end-to-end linkages • at panchayat level.
2	Engagement of Krishi Udyami at 500 KKGs	500 Krishi Udyamis (self-employments)
3	Semi Hitech Polyhouses (20No) at KVKs (under Process)	• Production of quality seed & planting material • Demonstration • Soil testing and disease diagnosis • Capacity Building • IT enabled extension services • Increase in production and productivity
4	Upgradation of soil testing and Disease Diagnostic Service Laboratories; IT centre; and Demo Units at KVKs	
5	Land Development (Fencing, Borewell, and Renovations)	
6	Cyber Extension Hub (Installation Pending)	• Handling Big data for Agricultural Research • IoT and ICT enabled dynamic extension services
7	Business Orientation Centre	Consultancy and Hand holding of farmers & entrepreneurs

B. Research and Development

S.NO	Activity	Outcome
1	• Software Solution for KKG along with android and IoS platform • Multi crop Decision Support System integrated with KKG(10%)	• IoT and ICT enabled dynamic extension services Farmers data base • Real time Crop & Area Specific Weather Based advisories Expert consultation
2	Students Rural Exploration/ Internship Programme	• 2000 students of SKUAST-K to adopt> 250 panchayats involving > 500 Villages across 10 districts of Kashmir
3	Extension Research Projects in progress	• Developed Android App for Poultry Farmers Impact of Technologies • Mapping of Live stock Diseases

C. Human Resource Development (HRD)

S.No	Activity	No	Broad Theme	No of trainees
1	Farmer/Ruralyouth Trainings	24	Farming & Non-Farming Activities Smart & Secondary Agriculture	2200 farmers

D. Financial (Lakhs)

Allotted	Released	Expenditure	%utilization
2600.00	2080.00	1851.40	89.00

Glimpses of major research / infrastructure activities

Glimpses of major Capacity buildings activities

HADP-21
Production of Designer Plants for Promotion of High Density Plantation and Rejuvenation of Orchards

A. Physical

S.NO	Activity	Outcome
1	Plant Propagation Unit (Nursery)	50,000 rootstocks budded/grafted
2	Establishment of Rootstock Bank (Apple)	30,000 rootstocks planted in mother bank
3	Establishment of Mother Orchards (Apple, Cherry, Walnut)	4 Ha of mother of mother block complete, shall produce more than 1.0 lac budwood
4	Establishment of Hi-Tech Green Houses (Protected cultivation)	320 m2 polyhouse established, 4000 plants.
5	Mechanization, Automation and Upgradation of Nurseries	3 Ha of nurseries have been upgraded and automated
6	Strengthening and augmentation of plant material testing and micro propagation units through labs	One tissue culture lab (ongoing)

B. Research & Development (R&D)

Activity	Outcome
Research Development	• 4 rootstocks have been sequenced and 30 varieties are under evaluation. • Lateral and Bunch bearing walnuts identified • Production of Export Quality feathered planting material • Development of Self fertile Almonds • Development of new fruit varieties • Establishment certification protocols for genetic purity • Formulation of protocols for feathered plant material • Genetic Diversity Report and Core Marker Identification in Kiwi • Genotype Screening for downy mildew resistance in grapes

C. Financial

Allotted	Released	Expenditure	%utilization
640.88	512.87	512.86	99.99%

Glimpses of major research / infrastructure activities

HADP-23
Strengthening Dairy Sector in UT of J&K

A.Physical

S.NO	Activity	Outcome
1	Establishment of Multiple Ovulation embryo transfer & OPU-IVF facility	• State of art Center of Excellence on Animal Reproductive Biotechnology at MLRI Manasbal • Introduction of 100 high genetic merit Jersey cows as ovum donors for OPU-IVF • Dedicated facility for rearing high genetic merit calves obtained through ETT, their pedigree analysis and for future semen production • Increased availability of high genetic merit heifers for breed improvement.
2	Establishment of Calf rearing station	

B. Research and Development (R&D)

S.NO	Activity	Outcome
1	Establishment of Multiple Ovulation Embryo Transfer (MOET) & Ovum Pick-Up In-Vitro Fertilization (OPU-IVF) facility with state-of-the-art Class 100 cleanroom adhering to international standards	• Enhanced reproductive efficiency in dairy cattle through advanced assisted reproductive technologies
2	Development of advanced dairy reproduction technologies for embryo production and handling at MLRI, SKUAST K	• Production of superior quality embryos (>50 viable embryos successfully produced through IVF so far)
3	Importation and genetic evaluation of high-yielding Jersey cows for breed improvement	• Improved genetic merit of local dairy cattle population through introduction of prebred Jersey germplasm
4	Establishment of premier calf rearing station with automated management systems	• Increased milk production and productivity per animal in the region • Development of standardized protocols for embryo production, handling and transfer

C. Human Resource Development (HRD)

S.No	Activity	No	Broad Theme	No of trainees
1	Capacity Building of Scientists	1	Advanced Breeding Technologies (MOET-IVF)	5 scientists (International Training)

C. Financial

Allotted	Released	Expenditure	%utilization
2440	2084	1498	>85

Glimpses of major research / infrastructure activities

HADP - 24
Reorienting Priorities: Self Sufficiency in Mutton Production in J&K

A.Physical

Activity	Outcome
Fabrication of smart sheep shed as a model with bio sensors	Proper pollution control (poisonous gases accumulation in the shed like Hydrogen Sulphide , Carbon monoxide) and ammonia level has been fabrictaed at MRCSG as an initiave for precison farming

B. Research and Development (R&D)

S.NO	Activity	Outcome
1	• Blood samples collected from Texal Sheep and are under process for genotyping for detection of Myostatin gene mutation, • Data for growth traits recorded, digitized in the organized farm at Khimber where the animals are being maintained by department of SHD.	• Identification of High genetic variants for phenotypes of interest • Real time data for policy planning Will Contribute to understanding the archaeal community in • Texal sheep and developing effective strategies
2	• Fabrication of Smart Sheep shed as a model with bio sensors	• Proper pollution control (poisonous gases accumulating in the sheds like H2S, Carbon monoxide)and ammonia level has been fabricated at MRCSG as an initiative for precision farming
3	• Biochemical tests done as a part of research and development like ALP,(17) ALT(120) Glucose (43) Triglycerides (97)etc.	• A common facility for the university Sheep farm MRCSG, Government sheep farm and OPD patients from the cases coming from different areas

C. Human Resource Development (HRD)

S. No	Activity	No	Broad Theme	No of trainees
1	Line Departments / KVKs	-	• PI as resource person for Training of breeders/field functionaries for data recording, Scientific managemental practices,	70 Department Officers/ Officials trained

E. Financial

Allotted	Released	Expenditure	%utilization
0.20	0.20	0.20	100

Glimpses of major research / infrastructure activities

HADP – 25
ROADMAP FOR POULTRY DEVELOPMENT IN J&K

A. Physical

S.NO	Activity	Outcome
1	Refurbishment of poultry housing infrastructure	• Efficient rearing of different types of birds for development of egg type variety and recording of accurate breeding/production data of birds
4	Establishment of a dedicated facility for mini feed mill	• Formulation and production of low cost feed for poultry

B .Research and Development (R&D)

S.NO	Activity	Outcome
1	Development of egg type variety for backyard poultry rearing	• Development of F1 crossbred generation by mating Kashmir Favorella males with elite layer type hens
2	Nutritional analysis of non-conventional feeds available in Kashmir Valley.	• Three least cost rations have been formulated for broiler chickens
3	Feeding trials using least-cost ration for evaluation of performance in poultry birds.	
4	Vaccine Development	• 18 out of 524 samples tested positive for Newscastle Disease Virus using RT-PCR • One NDV whole genome sequence submitted to Genbank (PQ902089) • Candidate Newcastle disease vaccine platform backbone being constructed
5	Poultry health surveillance	• Prevalence of Fowl Adenovirus in poultry from Kashmir • Pathological Characterization in SPF chicks

C.Financial

Allotted	Released	Expenditure	% Utilization
100	100	99.62	99.62

Glimpses of major research / infrastructure activities

HADP – 26
Technological Interventions for Fish Seed &Trout Production in UT of J&K

A. Physical

S.NO	Activity	Outcome
1	Establishment of Feed Mill	Low Cost feed with production capacity of 2 to 3 tones/day
2	Establishment of Fish Hatchery/Development of diverse Trout/carp brood stock for the selective breeding Programme /Quality Trout seed production	Centre for quality seed @ 1 lakh/year and genetically improved fishes with better growth/Availability of quality seed of exotic and indigenous carps
3	Establishment of Disease Diagnosis laboratory viz-a-viz disease diagnosis and prophylactic measures	Centre for disease management/Increase in fish production/Reduction in diseases incidence.
4	Establishment of Fish Processing and value addition laboratory.	Development of new technologies in the field of fish processing (drying and smoking). Development of canned trout, fish soup powder and extruded products.

B. Research and Development (R&D)

S.NO	Activity	Outcome
1	Development of low-cost feed.	Development of cost-effective fish feed technology in cold water aquaculture.
2	Genetic interventions for growth and breeding in cold water fish/Seed production of indigenous & exotic fish species.	Development of Improved trout stock with better somatic growth and performance.
3	Disease diagnosis & prophylaxis.	Development of accurate and sensitive diagnostic tools for fish disease detection & effective prophylactic measures.
4	Value addition and product development.	Incubation facility for 200 person/annually.

C. Human Resource Development (HRD)

S.No	Activity	No.	Broad Theme	No of trainees
01	Two Day National workshop	01	Conservation of Indigenous Fishes of Jammu and Kashmir in Changing Climatic Scenario, Dated 18th to 19th Nov., 2024.	300
02	3-Days Hands-on Training	01	Fish Disease Diagnosis for Nurturing Entrepreneurial Skills 17th to 19th Dec 2024	150

D. Financial

Alloted	Released	Expenditure	%Utilization
285	285	284.35	99.77

Glimpses of major research / infrastructure activities

Glimpses of major capacity building activities

HADP-27
Promotion of wool and Pelt for effective Processing and Marketing

A. Physical

Activity	Outcome
Upgradation of Animal Fibre Quality Assurance Laboratory	• Quality Certified Animal fibre products. • Capacity-building and knowledge dissemination Centre
Fur Processing Unit	• State of art R&D Sheep Fur Skin Processing unit. • Capacity building and Incubation Centre
Needle Punching felting Unit	• R&D unit for development of non-woven woollen fabrics. • Capacity building and Incubation Centre.

B. Research and Development

Activity	Achievement	Outcome
Development of wool and pelt-based value added Products	18 products	1. Technology development. 2. Diversified range of wool and pelt-based products. 3. Employment generation. 4. Skilled and Trained workforce. 5. Adoption and Uptake of Technologies
Accreditation of Animal Fibre Quality Assurance Laboratory	01 (ongoing)	National and International acceptable test reports

C. Human Resource Development

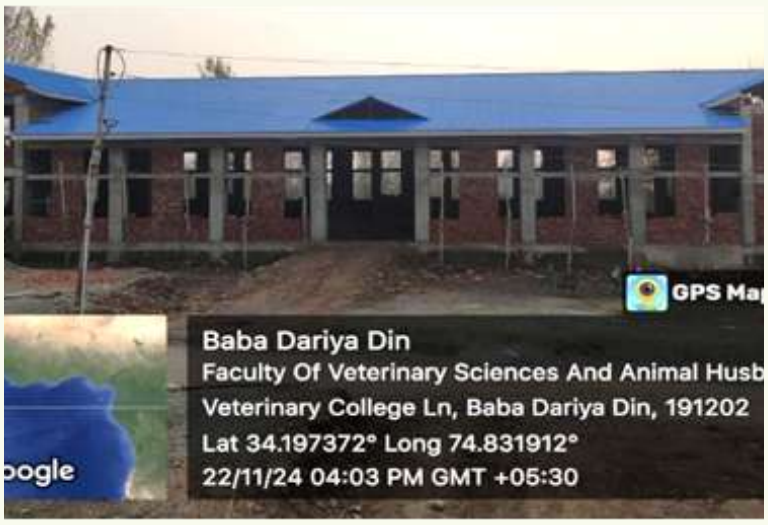
Capacity building of Farmers and Extension Functionaries

Type of training	Number of Trainings	Number of Participants	Outcome
Training of Trainers (TOT)	2	30	1. Enhanced knowledge and skill. 2. Empowered Artisans 3. Skilled farmers. 4. Strengthened entrepreneurial capacity
Skill Upgradation of Artisans	2	10	
Capacity Building Programs for Sheep Farmers	1	15	
Interaction cum Awareness Programs for wool Artisans	8	95	
Total	13	150	

D. Financial

Allotted	Released	Expenditure	%Utilization
280.00	294.88	293.14	99.41 %

Glimpses of major research / infrastructure activities



Glimpses of major capacity building activities

HADP-28
Development of Fodder resources for UT of J&K

A. Physical

Activity	Outcome
Establishment and installation of Hydroponics facility	• Standardization and response of different fodder crops under hydroponics culture • Nutrition quality
Establishment of Molecular Breeding Lab	• Molecular DNA profiling of various fodder crops • Genetic improvement of biomass & Nutrition quality

B. Research and Development (R & D)

Activity	Outcome
• (Hydroponics Fodder) Innovative approaches for green fodder production & mass multiplication under Hi-tech agriculture • R&D • Farmers Trainings	• Performance evaluation of different fodder types like maize, wheat, oats, legumes carried out under hydroponics system • Standardization of crop cycle: 10 days per cycle standardized for maize and wheat (@30 crop cycles per year) with a projected yield of 220 q of green fodder from 36x15 sq ft area • Farmers visits conducted for demonstration and awareness • Nutrition profiling
• Genetic improvement of fodder crops for yield and quality • Varietal development (Barley, Maize, Soybean, Sorghum) • Nutrition quality	• Varieties with high Green and Dry Fodder yield in: • Maize • Sorghum • Oats • Napier • Barley • Bajra • TLS Seed production: • Shalimar Fodder oats 3 • Shalimar Fodder Maize • Multiplication of Napier genotype SKUA-Napier-
• Horti-Pastoral System • Varietal development (alfalfa, legumes, Napier) • Nutrition quality	• Varieties with high Green and Dry Fodder yield in: • Soybean • Sorghum • Cowpea • Berseem • Transcriptome profiling in alfalfa • Nutrition profiling

C. Financial

Allocation	Release	Expenditure	Utilization (%)
116	92.78	92.74	99.95

Glimpses of major capacity building activities

HADP-29
Support to HRD for Technological back stop for sustainable and accelerated transformation of agriculture

A. Physical

Activity	Outcome
• Scholarships to Masters and PhD Students • 824 students provided Scholarships @Rs5000/month	• Increase student orientation and motivation for the Agricultural higher education, research & entrepreneurship • Make Agricultural Education and Research lucrative to attract talent and retain youth in Agriculture
• Vice Chancellors Flexi-grant to provide research support and necessary inputs	• Upgradation of Academic and Research standards at two farm universities • Provide timely critical inputs/contingencies for research/training/outreach etc & cover other unforeseen expenditures

B. Financial

Allotted	Released	Expenditure	%utilization
1424	1139.20	1064.89	93.47%


Memorandum of understanding
ICRISAT,
SKUAST-Kashmir
Sign MoU to
advance climate-resilient
agriculture in J&K


Technology Transfer to Industry
SalOvac
Feed based oral
Vaccine
A first indigenous recombinant Salmonella vaccine for poultry
Technology Transfer Facilitated by BIRAC for Commercialization

Holistic Agricultural Development Program
Jammu and Kashmir

SKUAST-K
PROGRESS REPORT
2024-25

Directorate of Research

Sher-e-Kashmir

University of Agricultural Sciences

& Technology of Kashmir

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No: AU/DR/HADP/2025/ 1358

Dated: 25.08.2025

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