**List of ALP On-Going Projects**

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| --- | --- | --- | --- | --- |
| **S. #** | **Title of Project** | **PI/Institute** | **Duration** | **Total Budget**  **(Rs million)** |
|  | **Animal Sciences:** |  |  |  |
|  | **Federal PARC/NARC** |  |  |  |
|  | Isolation, Characterization and Utilization of Riboflavin (Vitamin B2) Producing Lactic Acid Bacteria for Preparation of Neutraceutical Yogurt” (AS 006). | Dr. Haider Khan,  Principal Scientific Officer, Dairy Technology, ASI, NARC, Park Road, Islamabad, Pakistan | 10-03-2020  To  31-12-2022 | 4.943 |
|  | Evaluation of Crop residues Based Total Mixed Fermented Rations for Ruminants (AS 073) | Dr. Muhammad Iqbal Anjum,  Principal Scientific Officer, Livestock Research Station (LRS), Animal Sciences Institute (ASI), NARC, Islamabad. | 18-09-2019  To  31-12-2022 | 3.977 |
|  | Development of Monoclonal Antibodies Against Local Strains of PPR Virus in Sheep and Goats (AS 029) | Dr. Tahira Kamal, Scientific Officer, National Institute Genomics and Advanced Biotechnology, NARC, Islamabad | 22-07-2019  To  21-07-2023 | 8.502 |
|  | Epidemiology of Brucellosis in Pakistan (AS 074) | Dr. Aitezaz Ahsan,  Scientific Officer,  Livestock Research Station,  Animal Sciences Institute, NARC, Islamabad | 22-10-2020  To  21-10-2023 | 8.403 |
|  | One World-One Health: Holistic and Cost-Effective Approach to Counter Brucellosis in Sheep/Goats in Pakistan (AS 156) | Dr. Hamid Irshad,  Principal Scientific Officer,  Animal Health Programme, ASI, NARC, Islamabad | 22-10-2020  To  21-10-2023 | 4.856 |
|  | Investigations and Optimization of Sperm Sexing and Cryopreservation Techniques in Water Buffalo (AS 337) | Dr. S. Murtaza Hassan Andrabi,  Director/Principal Scientific Officer,Animal Reproduction and Genetics Program, Animal Sciences Institute, NARC, Islamabad | 29-03-2021  To  29-03-2024 | 9.1385 |
|  | Establishment of Angora Rabbitry at Juglote&Sakardu, PARC Mountainous Agricultural Research Centre (MARC) (AS 386) | Mr. Javed Iqbal,  Scientific Officer,  Livestock Research Station (LRS), Animal Sciences Institute (ASI), NARC, Islamabad | 01-03-2021  To  28-02-2023 | 5.756 |
|  | Validation and Establishment of Intensive Production Packages for High Value Fisheries (AS 394) | Dr. RehanaKausar,  Senior Scientific Officer/Deputy Director, Aquaculture & Fisheries Program, NARC, Islamabad | 01-03-2021  To  28-02-2023 | 17.187 |
|  | Exploring Genomic Architecture and Improving Selection Prediction for Milk Production Traits in Potential Cattle Breeds (AS 395) | Dr. M. Naeem Riaz,  Sr. Scientific Officer,  Animal Biotechnology Program, NARC, Islamabad | 01-03-2021  To  29-02-2024 | 17.243 |
|  | Introduction of a High Value Fish ChannaStriatus (Saul) in Aquaculture System of Pakistan (AS 330) | Mr. Aziz Ahmed  Senior Scientific Officer  Aquaculture & Fisheries Program,  NARC, Islamabad. | 18-05-2022  To  17-05-2025 | 6.965 |
|  | Investigations and Optimization of Sperm Sexing and Cryopreservation Techniques in Water Buffalo (AS 337) | Dr. S. Murtaza Hassan Andrabi,  Director/Principal Scientific Officer,Animal Reproduction and Genetics Program, Animal Sciences Institute, NARC, Islamabad | 29-03-2021  To  29-03-2024 | 9.1385 |
|  | Establishment of Angora Rabbitry at Juglote&Sakardu, PARC Mountainous Agricultural Research Centre (MARC) (AS 386) | Mr. Javed Iqbal,  Scientific Officer,  Livestock Research Station (LRS), Animal Sciences Institute (ASI), NARC, Islamabad | 01-03-2021  To  28-02-2023 | 5.756 |
|  | Validation and Establishment of Intensive Production Packages for High Value Fisheries (AS 394) | Dr. Rehana Kausar,  Senior Scientific Officer/Deputy Director, Aquaculture & Fisheries Program, NARC, Islamabad | 01-03-2021  To  28-02-2023 | 17.187 |
|  | Exploring Genomic Architecture and Improving Selection Prediction for Milk Production Traits in Potential Cattle Breeds (AS 395) | Dr. M. Naeem Riaz,  Sr. Scientific Officer,  Animal Biotechnology Program, NARC, Islamabad | 01-03-2021  To  29-02-2024 | 17.243 |
|  | Introduction of a High Value Fish ChannaStriatus (Saul) in Aquaculture System of Pakistan (AS 330) | Mr. Aziz Ahmed  Senior Scientific Officer  Aquaculture & Fisheries Program,  NARC, Islamabad. | 18-05-2022  To  17-05-2025 | 6.965 |
|  | Nutritional Enrichment of Maize Stovers as Feed for Ruminants Through Physiochemical Treatment and Ensilation | Dr. Muhammad Iqbal Anjum,  Principal Scientific Officer,  Livestock Research Station (LRS),  Animal Sciences Institute (ASI), NARC, Park Road, Islamabad | 01.01.2023  To  31.12.2025 | 7.418 |
|  | Implementation of Innovative Reproduction Techniques to Ameliorate Buffalo Semen Cryopreservation | Dr. Muhammad Hammad Fayyaz,  Scientific Officer, Animal Sciences Institute (ASI), NARC, Park Road, Islamabad. | 01.01.2023  To  31.12.2025 | 9.329 |
|  | Field Validation of a Newly Developed Homologous Lineage ThermotolerantPeste Des Petits Ruminants (PPR) Vaccine for Control of PPR | Ms. Asma Latif, Scientific Officer, Animal Health, Animal Sciences Institute, NARC, Park Road, Islamabad. | 01.01.2023  To  31.12.2025 | 7.317 |
|  |  |  |  |  |
|  | **Punjab** |  |  |  |
|  | Epidemiology, Advance Diagnosis and Biological Control Model of Ticks and Tick-Borne Diseases in Ruminants at Two Ecologies of Pakistan (AS 106) | Muhammad SohailSajid, Associate Professor, One Health Laboratory, Centre for Advanced Studies in Agriculture and Food Security (CAS-AFS), Department of Parasitology, University of Agriculture, Faisalabad | 26-10-2018  To  30-06-2022 | 3.602  (Extension Request under process) |
|  | Development of a Fourier Function Model for Selection of High Fertility Buffalo Bulls for AI (AS 181) | Dr. Shamim Akhter, Associate Professor/Chairperson, Department of Zoology, PMAS Arid Agriculture University, Rawalpindi. | 06-09-2018  To  30-09-2022 | 4.558 |
|  | Development and Application of Genomic Selection in Foreign and Local Cattle Breeds for Improvement in Dairy Related Traits (AS 016) | Dr. ShahidMansoor,  Deputy Chief Scientist/Director,  National Institute for Biotechnology and Genetic Engineering NIBGE, Jhang Road, Faisalabad | 06-08-2020  To  05-08-2023 | 4.950 |
|  | Genetic Characterization & Genetic Improvement of Major Carps through Nutrigenomics (AS 139) | Dr. FayyazRasool,  Assistant Professor,  Department of Fisheries and Aquaculture, University of Veterinary and Animal Sciences, Lahore | 06-08-2020  To  05-08-2023 | 2.643 |
|  | Sero-and Molecular Epidemiological Studies on Brucella Species Circulating in Ruminant and Human Populations of Southern Punjab, Pakistan: A One Health Perspective (AS 173) | Dr. Mian Muhammad Awais,  Assistant Professor, Department of Pathobiology, Faculty of Veterinary Sciences, BahauddinZakariya University, Multan, Pakistan. | 22-10-2020  To  21-10-2023 | 3.993 |
|  |  |  |  |  |
|  | **Sindh** |  |  |  |
|  | Commercialization of Fish Culture Technology in Coastal Region of Pakistan (Follow-Up of a Completed Project (AS 010) | Dr. Ghulam Abbas,  Assistant Professor,  Centre of Excellence in Marine Biology, University of Karachi, Karachi | 01-07-2021  To  30-06-2024 | 6.000 |
|  |  |  |  |  |
| 2 | **Khyber-Pakhtunkhwa** |  |  |  |
|  | Identifying Candidate gene in Differentially Expressed Gestation Lengths in Different Sheep Breeds and Climate Conditions through Transcriptome and Epigenetic Analysis (AS-098) | Dr. Sohail Ahmed,  Professor, Animal Biotechnology and Genetic Engineering, The University of Agriculture Peshawar,  Khyber Pakhtunkhwa, Pakistan | 27-02-2018  To  26-02-2023 | 9.555 |
|  |  |  |  |  |
|  |  |  | **Total:** |  |
|  | **Plant Sciences:** |  |  |  |
|  | **Federal PARC/NARC** |  |  |  |
|  | Ex-situ Conservation of Wild Edible and Medicinal Plants from Poorly Explored Bio-Diversity Hotspots of Pakistan (CS 245) | Dr. Amir Sultan,  P. L./PSO,  National Herbarium, National Agricultural Research Centre, Islamabad | 01.04.2022  To  31.03.2025 | 9.511 |
|  | Genome Editing of Tomato for Increased Shelf Life by Silencing Endogenous Viscosity1 (Vis1) Gene (CS 166) | Dr. Nazia Rehman,  Senior Scientific Officer,  National Institute for Genomics and Advanced Biotechnology, NARC, Park Road, Islamabad | 01.01.2022  To  31.12.2024 | 8.717 |
|  | Potato Varieties Development through Marker Assisted Selection (MAS) &Speed Breeding (CS 642) | Dr. Kazim Ali,  Scientific Officer,  NIGAB, NARC, Islamabad | 01.01.2022  To  31.12.2024 | 9.835 |
|  | Strengthening of Intellectual Property Rights (IPRs) for NARS Technologies (CS 928) | Dr. Shaukat Ali,  Principal Scientific Officer, NIGAB, NARC, Islamabad | 01.01.2022  To  31.12.2024 | 17.997 |
|  | Development of Bait Delivery Systems and Screening the Palatability of Baits Formulated for the Management of Wild Boar, SusScrofa (CS 195 | Mr. Irfan Ahmed,  Programme Leader/PSO,  Vertebrate Pest Management Program, IPEP, NARC | 01.01.2022  To  31.12.2024 | 8.332 |
|  | Micro Propagation of Elite Ginger Germplasm and Field Evaluation (CS update) | Mr. Muhammad Zeshan, Scientific Officer, National Institute for Genomics and Advanced Biotechnology, NARC, Islamabad | 15.01.2022  To  14.01.2025 | 8.999 |
|  | Molecular Characterization of Predatory Odonata Species of Pakistan (CS 404) | Dr. Syed Ahmed Zia,  Senior Scientific Officer,  National Insect Museum, IPEP-NARC, Islamabad | 01.01.2022  To  31.12.2024 | 7.288 |
|  | Evaluation of Geophytes for Cut Flower Production in Different Ecological Zones of Pakistan (Component-I) (CS 769) | Mr. ShahidNadeem,  Scientific Officer,  Floriculture Program, Horticultural Research Institute, National Agricultural Research Centre, Islamabad | 10.04.2022  To  09.04.2025 | 7.319 |
|  | DNA Based Varietal Identification of Fruit Plants for True to Type and Healthy Fruit Plant Nurseries (CS 932) | Dr. ArmghanShahzad,  Principal Scientific Officer,  NIGAB NARC, Islamabad | 01.01.2022  To  31.12.2024 | 11.694 |
|  | Evaluation of Oat, Vetch and CowpeaGermplasm for Better Adaptation in Changing Climate Scenario*(CS127)* | Mr. Zulifqar Ali,  Principal Scientific Officer,  Crop Sciences Institute, NARC Islamabad | 01.07.2021  30.06.2025 | 5.085 |
|  | Crop Value Enhancement in Peaches through Fruit Load Management *(CS763)* | Dr. RiazAlam,  Principal Scientific Officer,  Fruit Program, HRI, NARC, Islamabad | 01.04.2021  31.03.2025 | 2.459 |
|  | Evaluation of Oat Germplasm for Product Development. *(CS927)* | Dr. Sajjad Khan,  Senior Scientific Officer,  Crop Sciences Institute, NARC Islamabad | 01.03.2021  28.02.2024 | 7.196 |
|  | Molecular Identification of Indigenous Yeast Strains for Development of Yeast Extract Products. *(CS929)* | Dr. Shaukat Ali,  Principle Scientific Officer,  NIGAB, NARC, Park Road, Islamabad | 01.03.2021  28.02.2024 | 9.157 |
|  | Quality Characterization of Dephytinized Wheat; In Vitro Bio-Availability of Micro-Nutrients and their Effects on End Use Quality of Wheat Products (CS 542) | Mr. Nouman Rashid Siddiqui,  Principal Scientific Officer, Food Sciences & Product Development Institute, NARC, Islamabad | 15.02.2020  To  14.02.2023 | 8.312 |
|  | Development of Local Sunflower Hybrids and their Seed Production  (CS 102) | Dr. IhsanUllah,  PSO (Oilseeds)  NARC, Islamabad | 01.05.2020  To  30.04.2023 | 7.129 |
|  | Assessment of Biotic and Abiotic Stress Resistance in Soybean (Glycine Max L.) for Developing High Yielding Cultivars (CS 030) | Mr. Haris Khurshid,  Scientific Officer,  Oilseeds Research Program,  NARC, Islamabad | 01.07.2020  To  30.06.2023 | 4.340 |
|  | Collection and Domestication of Native Flowering Plants in Pakistan (CS 436) | MrShahidNadeem,  SO,  Floriculture Program, HRI,  NARC | 15-08-2020  To  14.08.2023 | 4.000 |
|  | *CRISPR-Cas9-based Genome Editing for Reduced Enzymatic Browning in Potato Tubers (*CS 939) | Dr. Zaheer Abbas,  Senior Scientific Officer,  National Institute for Genomics and Advanced Biotechnology, NARC, Park Road, Islamabad | 01.07.2022  To  30-06-2025 | 8.154 |
|  | *Establishment of Germplasm Unit (GPU) at NARC to Support Certified Nursery Plant Production (*CS-931) | ***Dr. Noorullah Khan,***  Senior Scientific Officer,  Fruit Section, HRI, NARC, Islamabad | 01.11.2022  To  30.10.2025 | 8.611 |
|  | *Evaluation of Selected Vegetable Genetic Resources in the National Genebank of Pakistan for Elite Genotypes Identification and Gap-filling in their Genepools (*CS-935) | ***Dr. Shakeel Ahmad***,  Principal Scientific Officer,  Plant Genetic Resources Programme (PGRP), Bio-Resources Conservation Institute (BCI), NARC, Park Road, Islamabad | 01.01.2023  To  31.12.2025 | 12.417 |
|  | *Capacity Building of PARC Scientists in Biosafety Field* (CS 940) | Dr. Sabahat Noor,  Senior Scientific Officer,  NIGAB, NARC, Islamabad | 01.01.2023  To  31.12.2025 | 8.811 |
|  | *Characterization and Grading of Capsicum Germplasm for Capsaicin Contents and Heat Units for Market Use* (CS 558) | Dr. Nouman Rashid Siddiqui,  Director FSRI/PSO,  FSRI, NARC, ChakShahzad, Park Road, Islamabad | 01.01.2023  To  31.12.2025 | 5.269 |
|  | *Seed Multiplicationand Promotion of Soybean Varieties (*CS 924) | Dr. IhsanUllah Khan,  Principal Scientific Officer / Program Leader,  Oilseeds Research Program, CSI, NARC, Islamabad | 01.03.2023  To  28.03.2025 | 13.575 |
|  | *Development of Climate Smart Mash and Mungbean Genotypes with Better Plant Type and Higher Yield through Intra & Inter Specific Hybridization (CS 221)* | Mr. Muhammad Jawad,  Scientific Officer,  Pulses Program, Crop Science Institute, NARC, Islamabad | 01.01.2023  To  31.12.2025 | 6.186 |
|  | *Development of Integrated Pest Management Strategies to Combat Invasive Tomato Leaf Miner (Tutaabsoluta ) in Pakistan (CS 551)* | Mr. AnjumShehzad,  Program leader /Principal Scientific Officer,  National Insect Museum, IPEP, NARC, Islamabad | 01.01.2023  To  31.12.2025 | 4.895 |
|  | *Development of parental lines and hybrids for boosting the yield in chillies* (CS-993) | DrNausherwan Nobel Nawab  Principal Scientific Officer  Vegetable Crops Research Programme, Horticultural Research Institute, NARC, Park Road Islamabad | 01.01.2023  To  31.12.2025 | 9.4363 |
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|  | **PARC (Outstation)** |  |  |  |
|  | Cultivation and Promotion of Ispaghol (PlantagoOvata) in Lesser Cholistan and Bahawalpur Division through Germplasm Evaluation with Value Addition (CS 556) | Malik Muhammad Yousaf,  Director/PSO,  Arid Zone Research Institute (PARC),  Bahawalpur | 01.02.2020  To  31.01.2023 | 7.044 |
|  | *Introduction of Mungbean in the Existing Cropping System under Limited Water Regime in the Southern Punjab Particularly the Cholistan Desert in Bahawalpur Division (CS 491)* | Mr. Mumtaz Hussain,  Principal Scientific Officer,  Arid Zone Research Institute (PARC), Bahawalpur | 01.02.2023  To  31.01.2025 | 4.710 |
|  | Adaptation of Good Agricultural Practices (GAP) for Ispaghol (PlantagoOvata), Production & Processing Technologies at Water Scared Areas of Lower-Sindh (Coordinated Component-I) (CS-053) | Dr. Muhammad Siddique Depar, PSO/Director, PARC-Arid Zone Research Insitute, Umerkot, Sindh | 01.08.2022  To  30.07.2025 | 6.766 |
|  | Improvement of Mechanized Tea Production and Promotion of Green Tea Profitability *(CS926)* | Dr. Abdul Waheed,  Director,  PARC - National Tea & High value Crops ResearchInstitute Shinkiari, Mansehra | 01.03.2021  28.02.2024 | 13.9985 |
|  | *Micropropagation of Indigenous Planting Material of Papaya (Carica Papaya L.,) (CS 874)* | Mr. Parwaiz Ahmed Baloch,  Principal Scientific Officer,  FQSRI, PARC-SARC, Old block 9 & 10 Karachi University Campus, University of Karachi | 15.01.2023  To  14.01.2025 | 7.637 |
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|  | **Punjab** |  |  |  |
|  | Implementation of GIS Models in the Movement Pattern of Whitefly Species and Biotypes and Associated Plant Viruses Along the CPEC Route (CS 648) | Dr. Ummadud din Umar,  Assistant Professor, Department of Plant Pathology, BahauddinZakariya University, Multan | 15.01.2022  To  14.01.2025 | 5.777 |
|  | Supply Chain Management of Cut Flowers Through Optimizing Postharvest Handling Protocols (Component-II) (CS 583) | Dr. Iftikhar Ahmad,  Assistant Professor,  Institute of Horticultural Sciences, University of Agriculture, Faisalabad | 01.02.2022  To  31.02.2025 | 4.432 |
|  | Production of Gelatin from Halal Source: Plants *(CS628)* | Dr. Sheraz Ahmed,  Asst Professor,  Cholistan University of Veterinary & Animal Sciences, Bahawalpur | 01.07.2021  30.06.2025 | 3.138 |
|  | Introduction, Adaptability and Intercropping of White Lupine (*LupinusAlbus*) as WinterLegumeForage in Arid Areas of Cholistan. *(CS905)* | Dr. Muhammad ZahidIhsan,  Assistant Professor (TTS),  Cholistan Institute of Desert Studies, Baghdad ulJadeed Campus, Islamia University of Bahawalpur | 01.07.2021  30.06.2024 | 4.6715 |
|  | Development of Fruits Value Addition Business Entities: A Way Forward Towards Women Entrepreneurship *(CS917)* | Dr. AfshanShafi,  Lecturer,  Department of Food Science and Technology, MNS-University of Agriculture, Multan | 01.07.2021  30.06.2024 | 5.0309 |
|  | Development of Yield Competitive High Temperature Tolerant Maize (Zea mays L.) Hybrid (CS 261) | Dr. Muhammad Aslam,  Assistant Professor,  Department of Plant Breeding and Genetics, University of Agriculture, Faisalabad | 01.07.2020  To  30.06.2023 | 4.869 |
|  | Strengthening Informal Indigenous Vegetable Seed System to Enhance Nutrition and Food Security of Pakistan (CS 232) | Dr. Irfan Afzal,  Associate Professor,  Department of Agronomy,  University of Agriculture,  Faisalabad | 15-08-2020  To  14.08.2023 | 4.540 |
|  | *DNA Barcoding of Quinoa (Chenopodium quinoa)Germplasm and its Associated Pathogens for Taxonomic Identification to Improve Crop Diversification (*CS 444) | Dr. SiddraIjaz,  Assistant Professor,  Centre of Agriculture Biochemistry and Biotechnology, University of Agriculture, Faisalabad | 01.07.2022  To  30-06-2025 | 10.010 |
|  | *Selection, Fingerprinting and Combining Ability Assessment of Candidate Chilli Accessions for OPV Development (*CS 959) | Dr. Muhammad Azam Khan,  Associate Professor,  Department of Horticulture, PMAS- Arid Agriculture University, Rawalpindi | 05.08.2022  To  04-08-2025 | 6.340 |
|  | *Incidence of Vivipary in Varieties of Mango under Different Ecologies (CS 505)* | Dr. Rao Wali Muhammad,  Director,  PARC Research & Training Station,  [BahauddinZakariya University, Multan](https://www.bzu.edu.pk/) | 01.01.2023  To  31.12.2025 | 3.735 |
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|  | ***Sindh*** |  |  |  |
|  | Development and Promotion of Improved Production Technology for Oil Palm Plantation and Production in Coastal Areas of Sindh Pakistan (CS 087) | Dr. Allah Wadhayo Gandahi,  Professor, Department of Soil Science, Sindh Agriculture University Tandojam, Sindh | 01.07.2022  To  30.06.2025 | 6.174 |
|  | *Distribution, Diagnostics and Containment of Panama Wilt of Banana Disease in Pakistan (*CS-036) | Dr. Rehana Naz Syed,  Associate Professor,  Department of Plant Pathology, Sindh Agriculture University, Tandojam | 05.08.2022  To  04-08-2025 | 8.50 |
|  | *Development of High Yielding Improved Soybeans Lines Adapted to Agro-Climatic Condition of Sindh Province* | Dr. Tanweer Fatah Abro,  Assistant Professor,  Department of Plant Breeding & Genetics, Faculty of Crop Production, Sindh Agriculture University Tandojam | 01.01.2023  To  31.12.2025 | 4.451 |
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|  | **Khyber-Pakhtunkhwa** |  |  |  |
|  | Prevalence and Management of Mycoflora Associated with Peach Orchards(CS 520) | Dr. Muhammad Fahim, Director and Associate Professor, Centre for Omic Sciences, Islamia College University, Peshawar | 01.01.2022  To  31.12.2024 | 6.936 |
|  | *Utilization of Nursery Sanitation Techniques in the Propagation ofEconomically Important NurseryPlants of Various Fruits Species forPeshawar Areas*(CS 933) | Dr. Muhammad Siddiq,  Principal Scientific Officer, Participatory Field Research Station, Tarnab, Peshawar | 25.11.2021  To  24.11.2024 | 8.371 |
|  | CRISPR-Cas BasedPromoter Editing  of SWEET Gene(s) in Locally Adapted Rice Cultivar(s) of Pakistan for Bacterial Blight Resistance *(CS781)*” | Dr. Tariq Mahmood,  Assistant Professor,  Department of Agriculture, Hazara University Mansehra | 01.07.2021  30.06.2024 | 6.741 |
|  | Collection, Characterization, Evaluation and Multiplication of Walnut Germplasm in Hazara Division, Khyber Pakhtunkhwa, Pakistan. *(CS885)* | Mr. Akhtar Nawaz,  Director,  Hazara Agriculture Research Station Abbottabad | 01.03.2021  28.02.2024 | 6.9933 |
|  | *CRISPR/Cas9-based Genome Editing in Potato for Enhanced Resistance to PhytophthoraInfestans (*CS 567) | *Prof. Dr. RahamSher Khan,*  Professor,  Department of Biotechnology, Garden Campus, Mardan | 01.10.2022  To  30.09.2025 | 3.918 |
|  | *Improvement of Kiwifruit Cultivars by Selection of Superior Genotypes, Intra and Interspecific Hybridization (*CS 937) | Dr. Abdul Waheed,  PSO/Director,  National Tea and High Value Crops Research Institute, Shinkiari,Mansehra | 01.11.2022  To  30.10.2023 | 21.433 |
|  | *Genetic Spectrum for Identification of Bacterial Pathogens Infecting Vegetables of Hazara, Khyber Pakhtunkhwa (CS 580)* | Dr. Aziz-ud-Din,  Assistant Professor,  Department of Biotechnology and Genetic Engineering, Hazara University, Mansehra | 01.01.2023  To  31.12.2025 | 4.88 |
|  | Hybrid Innovations in Processing Technology of Dhakki Dates with Quality Retention, Packaging and Value-Addition: A Multifarious Approach*.(CS925)* | Dr. Shahzada Arshad Saleem,  Principal Research Officer/ Food Technologist,  Food Technology Section, Agricultural Research Institute, Dera Ismail Khan | 01.03.2021  28.02.2024 | 9.975 |
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|  | **Balochistan** |  |  |  |
|  | Improving Sesame Productivity Through Better Management Practices in Balochistan (CS 005) | Dr. Meer Muhammad Khan, Agronomist,  Directorate of Agriculture Research-DAR (Oilseed Crops), ARI, Quetta | 01.02.2022  To  31.01.2025 | 4.374 |
|  | Promotion and Introduction of Improved Varieties of Ispaghol (PlantagoOvata) Following WHO Guidelines of Good Agricultural Practices (GAP) in Balochistan (Component-II) (CS-699) | Mr. Munir Ahmed Khetran,  Principal Scientific Officer, Balochistan Agricultural Research and Development Center, Brewery, Quetta | 01.07.2022  To  30.06.2025 | 6.055 |
|  | Post-Harvest Fruits Management through Integrated Pre-harvest Management Practices in Balochistan(CS 104) | Dr. Syed Abdul Sadiq,  Director Agriculture Research, Directorate of Soil & Water Testing, Agriculture Research Institute (ARI), Quetta | 15.07.2022  To  14.07.2025 | 5.661 |
|  | Development of Pure Lines for the Production of Hybrid Tomato Through Shuttle Breeding (CS 240) | Mr. Bakht Ali,  Vegetable Botanist,  Directorate of Vegetable Seed Production, Agriculture Research Institute, Quetta | 01.07.2022  To  30.06.2025 | 7.269 |
|  | Improving Indigenous Varieties of Vegetable (Onion, Tomato, Okra, Brinjal and Pea) Through Certified Seed Production Practices at Vegetable Seed Farm and Farmers Field (CS 411) | Mr. Bashir Ahmed Bangulzai, Director,  Directorate of Vegetable Seed Production, Agriculture Research Institute, Quetta | 15.02.2022  To  14.02.2025 | 5.932 |
|  | *Improving Pistachio (Pistachio vera L.) Productivity through Better Budding and Management Practices in Balochistan, Pakistan (*CS-696) | *Mr. Abdullah Baloch,*  Scientific Officer,  Balochistan Agricultural Research and Development Center, Brewery, Quetta | 05.08.2022  To  04-08-2025 | 8.399 |
|  | *Strengthening of Post-Harvest Technology to Improve the Drying and Dehydration of Fruits and Vegetables in Balochistan*(CS-815) | *Mr. NaqeebUllah,*  Acting Food Technologist,  Directorate of Post-Harvest and Food Technology, ARI, Sariab, Quetta | 01.01.2023  To  31.12.2025 | 4.509 |
|  | *EvaluationandSelectionofHighYieldingGenotypesofSesame(Sesamumindicum L.)underClimaticConditionsofBalochistan (CS 697)* | Mr. Amanullah,  SeniorScientificOfficer,  BARDC,WesternBypass,Brewery,Quetta | 01.01.2023  To  31.12.2025 | 8.0189 |
|  |  |  |  |  |
|  | **Other Federal** |  |  |  |
|  | Molecular Identification, Characterization and Development of Resistance Against Sugarcane White Leaf Disease (SWLD) (CS 435) | Dr. Imtiaz Ahmed Khan, Deputy Chief Scientist (DCS), Plant Breeding and Genetics Division, Nuclear Institute of Agriculture (NIA), Hyderabad, Sindh | 01.02.2020  To  31.01.2023 | 5.380 |
|  | Development of High Yielding, Herbicide Tolerant and Input Responsive Chickpea through Mutation Breeding and Molecular Approaches (CS 209) | Dr. Tariq Mahmud Shah,  Deputy Chief Scientist,  Plant Breeding and Genetics Division, Nuclear Institute for Agriculture & Biology (NIAB), Faisalabad | 01.07.2020  To  30.06.2023 | 6.287 |
|  | *Development of High Yielding and Drought Tolerant Cotton Varieties Better Adaptive to Changing Climate(*CS-163) | *Dr. Hafiz Mumtaz Hassan,*  Senior Scientist,  Nuclear Institute for Agriculture and Biology (NIAB) PAEC, Cotton Group, PBG Division, Faisalabad | 15.08.2022  To  04-08-2025 | 5.200 |
|  | *Development of High Yielding, Short Duration, Short Stature Varieties of Castorbean and Promotion of Approved Variety and Value-Added Products of Castorbeanin Suitable Areas* | *Dr. Mahmood-ul-Hassan,*  Principal Scientist,  Nuclear Insitute for Agriculture & Bilology (NIAB), Faislabad | 01.09.2022  To  30-08-2025 | 5.343 |
|  | *Breeding High Yielding Okra (AbelmoschusEsculentus L.) Genotypes (CS 027)* | Dr. Iqbal Saeed,  Senior Scientist,  Nuclear Institute for Food and Agriculture (NIFA)/PAEC, Tarnab, Peshawar | 01.03.2023  To  28.02.2025 | 2.008 |
|  | *Development of high yielding rapeseed mutants adaptable to rain-fed areas in KP through Nuclear Interventions (CS 379)* | Mr. Hafiz Munir Ahmed,  Principal Scientist,  Nuclear Institute for Food and Agriculture (NIFA) Tarnab, GT Road, Peshawar | 01.01.2023  To  31.12.2025 | 3.169 |
|  |  |  |  |  |
|  | **Azad Jammu & Kashmir** |  |  |  |
|  | *Morpho-GeneticCharacterizationofPlantParasiticNematode Fauna from Temperate Divisions of KPK, GilgitBaltistan, AJKand their Management (CS 178)* | Dr.MuhammadTariq Khan,  Assistant Professor,  Departmentof Plant Pathology,Facultyof Agriculture,UniversityofThePoonchRawalakot | 01.01.2023  To  31.12.2025 | 5.438 |
|  |  |  | **Total:** |  |
|  | **Natural Resources:** |  |  |  |
|  | **Federal PARC/NARC** |  |  |  |
|  | Superior Quality Honeybee Queens Production through Non-Traditional Techniques (NR 047). | Mr. Muhammad Khalid Rafique, Scientific Officer, Honeybee Research Institute, NARC, Islamabad | 25-08-2019  to  31-12-2022 | 7.887 |
|  | Assessment of Potential Fast Growing Hybrid Tree Species in Silvo-agriculture System in Pakistan” (NR-339). | Mr. Mohammad Umar Farooq, Principal Scientific Officer, Rangeland Research Institute, NARC, Islamabad | 10-11-2022  To  09-11-2025 | 14.218 |
|  | Integrated Pest Management (IPM) of Ectoparasitic mites, Varroa destructor and Tropilaelapsclareae in honey bee, Apismellifera colonies” (NR-147). | Dr. Noor Islam, Senior Scientific Officer, Honey Bee Research Institute (HBRI) NARC, Islamabad | 10-11-2022  To  09-11-2025 | 8.611 |
|  |  |  |  |  |
|  | **Punjab** |  |  |  |
|  | Improving Mango Productivity and Fruit Quality by Integrated Plant Nutrition, Including Micronutrients, in Mango Growing Areas of Pakistan (Multan, Muzaffargarh, Rahim Yar Khan and Mirpur Khas Districts) (NR 206) | Dr. Niaz Ahmed,  Asso. Prof, Department of Soil Science, Faculty of Agricultural Sciences, BahauddinZakariya University, Multan | 15-10-2018  to  14-10-2023 | 5.081 |
|  | Conservation of Native Bees through Ecosystem Approach for Enhanced Crop Pollination (NR 191) | Dr. Muhammad Asif Sajjad,  Assistant Professor,  Department of Entomology, University College of Agriculture and Environmental Sciences, The Islamia University of Bahawalpur | 10-07-2019  to  09-07-2022 | 6.597 |
|  | “Development of Graphene Reinforced Wood-Plastic-Composites (WPC) using Local Agriculture and Forestry based Residues for Construction, Furniture and Fruit Packaging Industries” (NR 062) | Dr. Javed Iqbal,  Assistant Professor (TSS) Chemistry,  University of Agricultural Faisalabad | 15-07-2019  to  14-07-2022 | 2.253 |
|  | “Assessing the Plant resources and Climate change impact to develop the Conservation Strategy of Cholistan Rangelands (Pakistan)” (NR 082) | Dr. Muhammad Abdullah,  Assistant Professor, Cholistan Institute of desert studies (CIDS), The Islamia University of Bahawalpur (IUB) Pakistan | 10-07-2019  To  09-07-2022 | 6.35 |
|  | Micronutrients Status and Management in Citrus Orchards under Different Agro-Climatic Conditions” (NR 167) | Dr. Muhammad Ashraf, Associate Professor,  Department of Soil Sciences, BahauddinZakariya University, Multan. | 15-11-2021  to  14-04-2024 | 6.494 |
|  | Integrating Climate Change Adaptation and Mitigation in Agriculture System through Agroforestry for Ecosystem Conservation (NR-205) | Dr. Fahad Rasheed,  Assistant Professor, Department of Forestry & Range Management,  University of Agriculture, Faisalabad | 15-04-2022  to  14-04-2025 | 6.9965 |
|  | Productivity Improvement of Marginal Lands of Cholistan and Combat with Desertification through Various Innovation Agricultural Interventions” (NR-208) | Dr. Malik Muhammad Yousaf,  Director/PSO Arid Zone Research Institute (AZRI)  PARC Bahawalpur | 01.01.2023  To  31.12.2025 | 16.693 |
|  |  |  |  |  |
|  | **Balochistan** |  |  |  |
|  | Management and Improvement of Water Productivity under Rainfed Production Systems of Highland Balochistan” (NR-097) | Mr. Muhammad NadeemSadiq,  PSO/PL, NRMRD, BARDC, Quetta | 01.03.2023  To  28.02.2026 | 8.542 |
|  |  |  |  |  |
|  | **FATA** |  |  |  |
|  | Determination of Fertilizer Requirements for Optimizing Tomato Productivity in Tribal District Kurram of Erstwhile FATA (NR-030) | Mr. Iqrar Hussain,Research Officer, Agriculture Research,  Soil and Water Testing Laboratory, Parachinar, Kurram Agency, FATA | 02-08-2021  to  01-04-2024 | 5.612 |
|  |  |  |  |  |
|  | **Other Federal** |  |  |  |
|  | Development of novel biofertilizer consisting of consortium of strains to cope with the emerging challenges of abiotic stresses under climate change.” (NR 336) | Dr. Humaira Yasmin PhD  COMSATS University, Islamabad, Assistant professor  Department of Biosciences, COMSATS University, Islamabad | 16-04-2021  to  15-04-2024 | 5.991 |
|  | Binding and Fate of Micronutrients Blends to Urea and DAP Fertilizers for Value Addition (NR-190) | Dr. Muhammad Bilal Khan Niazi,  Associate Professor,  School of Chemical & Materials Engineering (SCME),  National University of Science and Technology (NUST), Islamabad | 01-01-2020  to  31-12-2024 | 4.122 |
|  |  |  |  |  |
|  | **Azad Jammu & Kashmir** |  |  |  |
|  | Integrating Climate Change Adaptation and Mitigation in Agriculture System through Agroforestry for Ecosystem Conservation (NR-205)”. | Dr. Mohsin Zafar, Associate Professor,  Department of Environmental Sciences, Faculty of Natural and Applied Sciences,  Mirpur University of Science and Technology (MUST), Mirpur | 05-07-2022  to  04-07-2025 | 4.28 |
|  |  |  | **Total:** |  |
|  | **Social Sciences:** |  |  |  |
|  | **Federal PARC/NARC** |  |  |  |
|  | Technologies and Farm Practices of Major Crops in Context of Decreasing Profitability in Pakistan | Dr. Abid Hussain,  Senior Scientific Officer,  Social Sciences Research Institute (SSRI),  NARC, Park Road, Islamabad | 24 Months  01.03.2020  To  28.02.2023 | 4.387 |
|  | Flow of Price Information among the Major Markets of Punjab, Pakistan | Ms. SairaBatool,  Scientific Officer, Directorate of Agricultural Marketing and Trade, Social Sciences Division, PARC, Islamabad | 01.07. 2022  To  June 2024 | 1.339 |
|  |  |  |  |  |
|  | **PARC (Outstation)** |  |  |  |
|  | Crop-Livestock Integrated Farming Systems at Marginal and Small Farms in Irrigated Punjab: Livelihood, Employment and Food Security Linkages | DrArshed Bashir,  Principal Scientific Officer, Social Sciences Research Institute, (PARC), Post Harvest Research Center Building, Ayub Agri. Research Institute, Faisalabad | 05.07.2019  to  04.07.2022  (Extension case is under process) | 4.530 |
|  |  |  |  |  |
|  | **Khyber-Pakhtunkhwa** |  |  |  |
|  | Analyzing the Impact of Climate Change on Major Crops Productivity in Khyber Pakhtunkhwa, Pakistan | Dr. Khurram Nawaz,  Associate Professor,  Department of Agricultural & Applied Economics,  The University of Agriculture Peshawar, | 01.12.2022  To  30.11.2024 | 4.881 |
|  |  |  | **Total:** |  |
|  | **Agri, Engineering:** |  |  |  |
|  | **PARC (Outstation)** |  |  |  |
|  | Postharvest Processing of Chilies for Producing Quality Produce | Engr. BehariLalMeghwar,  Senior Scientific Officer, Arid Zone Research Institute, PARC Umerkot. | 01.02019  to  31.01.2023 | 6.331 |
|  |  |  |  |  |
|  | **Punjab** |  |  |  |
|  | Design and Development of Indigenized Compost Windrow Turner for the Enrichment of Soil Nutrients | Dr. SarfrazHashim,  Assistant Professor, Department of Agricultural Engineering, Muhammad Nawaz Shareef University of Agricultural Multan | 15.07.2021  To  14.07.2024 | 10.130 |
|  | Development and Adaptation of a Mechanized transplanting Technology for Vegetables | MehmoodRiaz,  Agricultural Engineer, Agricultural Mechanization Research Institute (AMRI), Old Shujabad Road, Multan | 01.07.2021  To  30.06.2024 | 9.708 |
|  | Development of Dust Control Mechanism for Wheat Thresher to Minimize Environmental Pollution and Control Health Hazards of Farming Community | Dr. Zia-Ul-Haq,  Lecturer,  Agricultural Engineering,  Faculty of Agricultural Engineering &Technology, PirMehr Ali Shah Arid Agriculture University, Rawalpindi | 01.07.2022  To  30.06.2024 | 8.242 |
|  |  |  |  |  |
|  | **Khyber-Pakhtunkhwa** |  |  |  |
|  | Development of Prismatic Solar Collector for Drying of Fruits Vegetables, Grains and Feed Heating | Prof. Dr. Mansoor Khan Khattak,  Professor/Chairman,  Department of Agricultural Mechanization,  Khyber Pakhtunkhwa Agricultural University, Peshawar | 01.04.2021  To  31.03.2024 | 7.243 |
|  |  |  |  |  |
|  | **Other Federal** |  |  |  |
|  | Develop an Innovative Technique for Processing the Olive Fruit Waste to Achieve Leftover Oil for Edible Use | Engr. Dr. Salman Raza Naqvi,  Assistant Professor, School of Chemical & Materials Engineering (SCME), National University of Science and Technology (NUST), Islamabad | 01.07.2021  To  30.06.2024 | 7.013 |
|  | Development ofHybrid Indirect Type Solar Dryer for Drying of Fruits and Vegetables | Dr. Maazullah Khan, Deputy Chief Engineer, Nuclear Institute for Food and Agriculture (NIFA) Tarnab, Peshawar | 01.07.2021  To  30.06.2024 | 3.261 |
|  |  |  | **Total:** |  |
|  |  |  | **Grand Total:** |  |

***Region and Sector wise Number of ALP Funded Ongoing Projects***

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Region/Sector | **Animal Sciences** | **Plant Sciences** | **Natural Resources** | **Social Sciences** | **Agri. Engg.** | **Total** |
| ***Federal PARC/NARC*** | 18 | 26 | 03 | 02 | 0 | ***49*** |
| ***PARC (Outstation)*** | 0 | 05 | 0 | 0 | 01 | ***06*** |
| ***Punjab*** | 05 | 10 | 07 | 01 | 03 | ***26*** |
| ***Sindh*** | 01 | 03 | 0 | 0 | 0 | ***04*** |
| ***Khyber Pakhtunkhwa*** | 01 | 08 | 0 | 01 | 01 | ***11*** |
| ***Balochistan*** | 0 | 08 | 01 | 0 | 0 | ***09*** |
| ***Gilgit Baltistan*** | 0 | 0 | 0 | 0 | 0 |  |
| ***FATA*** | 0 | 0 | 01 | 0 | 0 | ***01*** |
| ***Other Federal*** | 0 | 06 | 02 | 0 | 02 | ***10*** |
| ***Azad Jammu & Kashmir*** | 0 | 01 | 01 | 0 | 0 | ***02*** |
| ***NGO/Other*** | 0 | 0 | 0 | 0 | 0 |  |
| ***Total*** | **25** | **67** | **15** | **04** | **07** | ***118*** |

***Region and Sector wise Total Cost (Approved) of ALP Funded Ongoing Projects***

***(Rs million)***

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Region/Sector** | **Animal Sciences** | **Plant Sciences** | **Natural Resources** | **Social Sciences** | **Agri. Engg.** | **Total** |
| ***Federal PARC/NARC*** | 167.324 | 214.7243 | 30.716 | 5.726 | 0 | ***418.4903*** |
| ***PARC (Outstation)*** | 0 | 40.1555 | 0 | 4.530 | 6.331 | ***51.0165*** |
| ***Punjab*** | 19.746 | 52.5434 | 50.4645 | 0 | 28.08 | ***150.8339*** |
| ***Sindh*** | 6.000 | 19.125 | 0 | 0 | 0 | ***25.125*** |
| ***Khyber Pakhtunkhwa*** | 9.555 | 69.2473 | 0 | 4.881 | 7.243 | ***90.9263*** |
| ***Balochistan*** | 0 | 50.2179 | 8.542 | 0 | 0 | ***58.7599*** |
| ***GilgitBaltistan*** | 0 | 0 | 0 | 0 | 0 | ***0*** |
| ***FATA*** | 0 | 0 | 5.612 | 0 | 0 | ***5.612*** |
| ***Other Federal*** | 0 | 27.387 | 10.113 | 0 | 10.274 | ***47.774*** |
| ***Azad Jammu &Kashmir*** | 0 | 5.438 | 4.28 | 0 | 0 | ***9.718*** |
| ***NGO/Other*** | 0 | 0 | 0 | 0 | 0 | ***0*** |
| ***Total*** | ***202.625*** | ***478.8384*** | ***109.7275*** | ***15.137*** | ***51.928*** | ***858.2559*** |