**CORE COMPETENCIES OF PCRWR:**

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| **S/n** | **Features** | **Description** |
| 1. | **Products** | PCRWR has developed the following low cost R&D products:   * Tensiometer for determining soil moisture * Arsenic Water Testing Kit * Microbiological water testing kit * Household Safe Water Filter (Capacity 20 liters) * Arsenic Removal Community Filter (Capacity 250 liters) * Mahfooz Pani Disinfection Tablets (For treatment of 20 liters & 500 gallons) |
| 2. | **Facilities** | * State -of-the-art National Water Quality Laboratory (NWQL) having major equipments *viz.* Flame Photometers, EC-Meters, PH Meters, Turbidity Meter, Chlorine Meter, Atomic Absorption Spectrometer, Inducto-couple Plasma, Gas Chromatography Mass Spectrometry and Liquid Chromatography Mass Spectrometry * Advisory Services for Installation of Drinking Water Filtration Plants, Ultra-filtration System and Reverse Osmosis System * Technical Services for Ground Water Investigation with equipment *viz.*Resistivity Meter, Magnetic Pulsation Machine etc. * Advisory Services for Remote Sensing Satellite Based Water Resources Management through Gravity Recovery and Climate Experiment (GRACE) * Advisory Services for Rain Water Harvesting, Tile Drainage, Solar Powered Groundwater Pumping * Technical Expertise for Installation of Drip IrrigationSystem |
| 3. | **Major Strengths** | **Resources**   * Ph.Ds: 5 * M.Engg./M.Phil/M.Sc./B.E.: 87 * Regional Offices: 8 * Water Quality Testing Laboratories: 24 * Research (Agriculture) Farms : 10 |
| 4. | **Designing** | Designing Services for   * Solar Based Pumping * Drip Irrigation System * Field Irrigation Systems * Drinking Water Filtration Plant * Ultra-filtration Units * Reverse Osmosis System * Project Planning & Management + Feasibility Studies in Water Sector |
| 5. | **Quality Assurance** | ISO 17025 Accredited National Water Quality Laboratory |

**Pakistan Council of Research in water (Data base):**

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| **1.1 National Water Quality Laboratory, Islamabad** | | | | | | |
| **A** | **List of Major Equipment** | | | | **Quantity** | |
|
| 1) | Gas Chromatograph Mass Spectrometer | | | | 1 | |
| 2) | Atomic Absorption Spectrometer | | | | 3 | |
| 3) | Spectrophotometer | | | | 2 | |
| **B** | **List of Experts** | | | **Designation** | | **Major Field** |
| 1) | Mr. ShakeelBadshah | | | Research Officer | | Organic Chemistry |
| 2) | Mrs. Saiqa Imran | | | Senior Research Officer | | Organic Chemistry |
| 3) | Mrs. ShaziaGhaffar | | | Research Officer | | Bio-chemistry |
| 4) | Mr. Muhammad Asghar | | | Assistant Scientific Officer | | Water Quality |
| **C** | **Services:** | | | | | |
|  | **a** | **Water Testing/ Analytical: i.** Trace elements (arsenic, copper, zinc, manganese, chromium, lead etc.)  ii. Physico-chemicals and microbiology  iii. Persistent Organic Pollutants) | | | | |
|  | **b.** | **Consultancy:** Provide Consultancy to Public and Private Sectors in various fields. | | | | |

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| **1.1 Soil Physics Laboratory, PCRWR, Islamabad** | | | | | |
| **A** | **List of Major Equipment** | | | **Quantity** | |
|
| 1) | Pressure Plate | | | 2 | |
| 2) | Hain’s Apparatus | | | 18 | |
| **B** | **List of Experts** | | **Designation** | | **Major Field** |
| 1) | Mrs . Arsalan Aslam | | Research Associate | | GIS/Remote Sensing |
| 2) | Mr. Aleem Ahmad | | Research Assocaite | | Agricultural Engineering |
| 3) | Mr. Ali Bahzad | | Assistant Director | | Water Resources Management |
| 4) | Mr. Abbas | | Research Associate | | Agricultural Engineering |
| **C** | **Services:** | | | | |
|  | **a** | **Testing/ Analytical:** i**.** Soil Moisture Retention Curves.  ii. Soil Textural Analysis | | | |
|  | **b.** | **Consultancy:** Provide Consultancy to Public and Private Sectors in different fields (water, Agriculture). | | | |

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| **1.1 Commercialization Cell, PCRWR, Islamabad** | | | | | |
| **A** | **List of Major Equipment** | | | | **Quantity** |
|
| 1) | Incubators | | | | 2 |
| 2) | UV Enclaves | | | | 1 |
| **B** | **List of Experts** | | **Designation** | | **Major Field** |
| 1) | Engr. Masood Ahmad | | Assistant Director | | Water Treatment Technology |
| **C** | **Services** | | | | |
|  | **a.** | **Testing/ Analytical :** Water quality field testing | | | |
|  | **b**. | **Consultancy:** Provide consultancy toCommunity and household drinking water treatment | | | |

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| **1.1 Water Management Section, PCRWR, Islamabad** | | | | | | |
| **A** | **List of Major Equipment** | | | | | **Quantity** |
|
| 1) | Terrameter | | | | | 1 |
| 2) | Total Station | | | | | 1 |
| 3) | Differential GPS | | | | | 1 |
| **B** | **List of Experts** | | **Designation** | | **Major Field** | |
| 1) | Mr. Naveed Iqbal | | Assistant Director | | Groundwater Hydrology | |
| 2) | Mr. Ahmad Zeeshan Bhatti | | Assistant Director | | Water Management | |
| **C** | **Services:** | | | | | |
|  | **a.** | **Consultancy:** Provide consultancy toPrivate Clients in water management | | | | |

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| **1.1 PCRWR R&D Centre, Mera Katchori, Peshawar** | | | | | |
| **A** | **List of Major Equipment** | | | **Quantity** | |
|
| 1) | Bed and Furrow Planter | | | 1 | |
| 2) | Tractor with Agriculture implements | | | 1 | |
| 3) | Leaser Land Leveler | | | 1 | |
| 5) | Lysimetric research station | | | 1 | |
| **B** | **List of Experts** | | **Designation** | | **Major Field** |
| 1) | Mr. Naeem Khan | | Deputy Director | | Agriculture water management |
| 2) | Mr. Khan Muhammad | | Technician | | Agricultural machinery |
| **C** | **Services:** | | | | |
|  | **a.** | **Consultancy (**Water Management, Irrigation, WAPDA) | | | |
|  | **b.** | **Training:** Provides training to Professionals and Farmers | | | |

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| **1.1 Water Quality Laboratories, Peshawar, DI Khan, Abbotabadand Muzzaffarabad** | | | | | | | |
| **A** | | **List of Major Equipment** | | | | **Quantity** | |
|
| 1) | | Auto Clave | | | | 4 | |
| 2) | | Atomic Absorption Spectrometer | | | | 1 | |
| 3) | | Flame photometer | | | | 4 | |
| 4) | | UV-Visible Spectrophotometer | | | | 4 | |
| **B** | | **List of Experts** | | | **Designation** | | **Major Field** |
| 1) | | Mr. Muneeb-ur-Rehman Khattak (Abbotabad) | | | Research Officer | | Applied Chemistry |
| 2) | | Mr. Shakeel Ahmad (Peshawar) | | | Assistant Scientific Officer | | Organic Chemistry |
| 3) | | Mr. Shafique Ahmad (DI Khan) | | | Research Officer | | Water quality |
| 4) | | Mr. Akram Aziz (Muzzaffarabad) | | | Research Officer | | Water quality |
| **C** | | **Services:** | | | | | |
|  | | **a.** | **Testing/ Analytical (**Water Testing and analysis) | | | | |
|  | | **b.** | **Consultancy:** Consultancy provide to Public and Private sectors in different fields of water quality. | | | | |

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| **1.1 Drainage Research Centre, Tando Jam** | | | | | | | | | | | | | | | | | | |
| **A** | | | | **List of Major Equipment** | | | | | | | | | | | **Quantity** | | | |
|
| 1) | | | | Lysimetric Research Station | | | | | | | | | | | 1 | | | |
| 2) | | | | Trenching Machine Gravel Lying | | | | | | | | | | | 1 | | | |
| y | | | | Ditch Witch Synthetic Lying | | | | | | | | | | | 1 | | | |
| 4) | | | | Back Hoe Case | | | | | | | | | | | 1 | | | |
| 5) | | | | Excavator O & K | | | | | | | | | | | 8 | | | |
| 6) | | | | Geho Pumps | | | | | | | | | | | 2 | | | |
| 7) | | | | Tractors with Gravel Hoppers | | | | | | | | | | | 1 | | | |
| 8) | | | | Bed planters | | | | | | | | | | | 2 | | | |
| 9) | | | | Laser land levelers | | | | | | | | | | | 1 | | | |
| **B** | | | | **List of Experts** | | | | | | **Designation** | | | | | | | | **Major Field** |
| 1) | | | | Engr. Abdus Salam Arain | | | | | | Deputy Director | | | | | | | | Drainage systems |
| 2) | | | | Hafiz Abdul Salam | | | | | | Assistant Director | | | | | | | | Water resources management |
| 3) | | | | Mr. Nazar Gul | | | | | | Research Associate | | | | | | | | Agriculture water management |
| **C** | | | | **Services:** | | | | | | | | | | | | | | |
|  | | | | **a.** | | **Consultancy:** Consultancy provide to Public and Private Sectors in various fields. | | | | | | | | | | | | |
|  | | | | **b.** | | **Training:** Organize and offer trainings to Professionals and Farmers: | | | | | | | | | | | | |
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| **1.1 Water Quality Laboratories, Karachi, Tando Jam, Hyderabad, Nawabshah, Sukkar and Badin** | | | | | | | | | | | | | | | | | | |
| **A** | | | **List of Major Equipment** | | | | | | | | | | **Quantity** | | | | | |
|
| 1) | | | Atomic Absorption Spectrometer | | | | | | | | | | 1 | | | | | |
| 2) | | | Flame Photometer | | | | | | | | | | 5 | | | | | |
| 3) | | | Spectrophotometer | | | | | | | | | | 5 | | | | | |
| 4) | | | Autoclave | | | | | | | | | | 4 | | | | | |
| 5) | | | BoD system | | | | | | | | | | 4 | | | | | |
| **B** | | | **List of Experts** | | | | | | | | | **Designation** | | | | | **Major Field** | |
| 1) | | | Dr. Ghulam Murtaza (Karachi) | | | | | | | | | Senior Research Officer | | | | | Analytical chemistry | |
| 2) | | | Mr. Abdul Jabbar Pathan (Tando Jam) | | | | | | | | | Assistant Director | | | | | Water quality and chemistry | |
| 3) | | | Mr. Parvez Ahmad Soomro (Sukkar) | | | | | | | | | Assistant Scientific Officer | | | | | Biochemistry | |
| 4) | | | Mr. Noor Zaman Shair (Nawabshah) | | | | | | | | | Assistant Scientific Officer | | | | | Water quality | |
| 5) | | | Mr. Abdul Ghaffar (Hyderabad) | | | | | | | | | Research Officer | | | | | Water quality | |
| 6) | | | Mr. Tariq Mehmood (Badin) | | | | | | | | | Research Officer | | | | | Water quality | |
| **C** | | | **Services:** | | | | | | | | | | | | | | | |
|  | | | **a** | | **Testing/ Analytical (**Water quality testing regarding physic-chemical, microbiological and trace elements, | | | | | | | | | | | | | |
|  | | | **b.** | | **Consultancy:** Provide Consultancy to Public and Private Sectors in different fields. | | | | | | | | | | | | | |
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| **Regional Office, PCRWR, Lahore**  **1.1 R&D Centre, Sial Mor, Sargodha** | | | | | | | | | | | | | | | | | | |
| **A** | | | **List of Major Equipment** | | | | | | | | | | | | | **Quantity** | | |
|
| 1) | | | Bed & Furrow Planter | | | | | | | | | | | | | 2 | | |
| 2) | | | Laser land leveling Unit | | | | | | | | | | | | | 2 | | |
| 3) | | | Zero Tillage | | | | | | | | | | | | | 2 | | |
| **B** | | | **List of Experts** | | | | **Designation** | | | | | | | **Major Field** | | | | |
| 1) | | | Engr. Dilshad Arshad | | | | | Assistant Director | | | | | | Water Resources Engineering | | | | |
| 2) | | | Engr. Khurram Ejaz | | | | | Assistant Director | | | | | | Agricultural Engineering | | | | |
| **C** | | | **Services** | | | | | | | | | | | | | | | |
|  | | | **a.** | | **Consultancy:** Provide consultancy inCultivation of crops on high efficiency irrigation systems. | | | | | | | | | | | | | |
|  | | | **b.** | | **Training**: Provide trainings to Professionals and Farmers in various fields. | | | | | | | | | | | | | |

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| **1.1 Water Quality Laboratories, Lahore, Faisalabad, Gujranwala, Sialkot, Sahiwal and Sargodha** | | | | | | | |
| **A** | | **List of Major Equipment** | | | | **Quantity** | |
|
| 1) | | Atomic Absorption Spectrometer | | | | 1 | |
| 2) | | Flame Photometer | | | | 6 | |
| 3) | | Spectrophotometers | | | | 6 | |
| **B** | | **List of Experts** | | | **Designation** | | **Major Field** |
| 1) | | Mr. Munawar Hussain (Lahore) | | | Research Officer | | Chemistry and water quality |
| 2) | | Mr. Waqar Ahmad (Faisalabad) | | | Research Officer | | Chemistry and water quality |
| 3) | | Mr. AamirEjaz (Gujranwala) | | | Research Officer | | Chemistry and water quality |
| 4) | | Mr. Sajjad Ahmad (Sahiwal) | | | Research Officer | | Chemistry and water quality |
| 5) | | Mr. Muhammad Sarfaraz (Sargodha) | | | Research Officer | | Chemistry and water quality |
| 6) | | Mr. Tajjamul Hussain (Sialkot) | | | Research Officer | | Chemistry and water quality |
| **C** | | **Services:** | | | | | |
|  | | **a** | **Testing/ Analytical :**Water quality testing regarding physic-chemical, microbiological and trace elements | | | | |
|  | | **b.** | **Training:** Provide training to Professionals and Farmers in different fields. | | | | |

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| **Regional Office, PCRWR, Bahawalpur** | | | |  | | |
| **1.1 Desert Research Stations, Cholistan** | | | | | | | |
| **A** | | **List of Major Equipment** | | | | **Quantity** | |
|
| 1) | | Laser land leveler | | | | 1 | |
| 2) | | Bed planter | | | | 2 | |
| 3) | | Rotavator | | | | 2 | |
| 4) | | Post hole digger | | | | 2 | |
| 5) | | Ditcher | | | | 2 | |
| **B** | | **List of Experts** | | **Designation** | | | **Major Field** |
| 1) | | Engr. Asmatullah Khawja | | Deputy Director | | | Water management |
| 2) | | Mr. M. Tahir Saleem | | Assistant Scientific Officer | | | Agronomy |
| **C** | | **Services** | | | | | |
|  | | **a.** | **Consultancy:** Provide consultancy to Public and Private Sectors in different fields. | | | | |
| **D** | | **Pilot Plant Facility** | | | | | |
|  | | **(Briefly describe, if available)** | | | | | |
|  | | Pilot sites established in the deserts for rainwater harvesting and desertification control | | | | | |

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| **1.1 Water Quality Laboratories, Bahawalpur, Multan, DG Khan** | | | | | | | | | | |
| **A** | | | **List of Major Equipment** | | | | **Quantity** | | | |
|
| 1) | | | Atomic Absorption Spectrometer | | | | 2 | | | |
| 2) | | | Flame Photometer | | | | 3 | | | |
| **B** | | | **List of Experts** | | | | **Designation** | | **Major Field** | |
| 1) | | | Mr. Muhammad Akram (Bahawalpur) | | | | Research Officer | | Water quality chemistry | |
| 2) | | | Mr. Muhammad Waseem (Multan) | | | | Research Officer | | Water chemistry | |
| 3) | | | Mr. Naeem Ahmad Dogar (DG Khan) | | | | Assistant Scientific Officer | | Water chemistry | |
| **C** | | | **Services:** | | | | | | | |
|  | | | **a** | **Testing/ Analytical :** Water quality testing regarding physic-chemical, microbiological and trace elements | | | | | | |
|  | | | **b.** | **Consultancy:** Provide Consultancy to Private and Public Sectors in different fields. | | | | | | |
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| **1.1 Regional Water Quality Laboratory, Quetta** | | | | | | | | | | |
| **A** | | | **List of Major Equipment** | | | | | | | **Quantity** |
|
| 1) | | | Atomic absorption spectrometer | | | | | | | 1 |
| 2) | | | U.V (Optizon) | | | | | | | 1 |
| 3) | | | U.V (Specord 40) | | | | | | | 1 |
| 4) | | | Fuming Hood | | | | | | | 1 |
| 5) | | | Flame Photometer | | | | | | | 1 |
| 6) | | | Autoclave | | | | | | | 2 |
| 7) | | | Laminar | | | | | | | 1 |
| 8) | | | Incubator | | | | | | | 3 |
|  | | | Serial No.3 is presently out of order | | | | | | | |
| **B** | | | **List of Experts** | | | **Designation** | | **Major Field** | | |
| 1) | | | Mrs. Ziviqar | | | Deputy Director | | Water quality analysis | | |
| 2) | | | Mrs. Zumar Naz Bugti | | | Research Officer | | Water testing, calibration, process validation and instrumentation | | |
| 3) | | | Mr. Sibghatullah Qureshi | | | Assistant Research Officer | | Analysis and reporting | | |
| **C** | | | **Services:** | | | | | | | |
|  | | | **a** | | **Testing/ Analytical (**Water Testing and analysis) | | | | | |
|  | | | **b.** | | **Consultancy:** Provide Consultancy to Private and Public Sectors in different fields. | | | | | |