

New Schemes of PSDP Projects of PCSIR

PSDP 2020-21 G.S/No.	Name of Project	Approval Status	Estimated Cost	Expenditure upto 30.06.2021	PSDP 2021-22	Project Objectives
N1	Up gradation of Calibration Centre Capabilities at PCSIR Peshawar	DDWP 11.05.2020	35.000	0.000	15.000	<ul style="list-style-type: none"> • To enhance the existing capabilities of Calibration Centre for the facilitation of Local Manufacturers and Public / Private Organizations. in the fields of <ul style="list-style-type: none"> ➤ Mass ➤ Dimensional ➤ Temperature ➤ Electrical/Electronics ➤ Mechanical ➤ Chemical • To provide a platform for interaction between manufacturers and end users by arranging technical seminars, workshops/training and exhibitions, etc. • To provide a favorable ground for R&D and technical assistance to local industries.
N2	Upgradation of Halal Authentication Labs at PCSIR Laboratories Complex, Lahore, Karachi and Peshawar	CDWP 03.06.2020	722.980	0.000	200.000	<ul style="list-style-type: none"> • To develop new analytical methods for identifying Haram ingredients adulterated in expected Halal food and non-food items(Ref. to SDG –02 & 9.5) • To conduct research and development on new Halal food production and to advise the Government of Pakistan on the development of National Halal Policies (Ref. to SDG –03) • To provide professional services and trainings on Halal productrelated matters. • To provide state-of-the-art analytical services to importers of processed food and additives(Ref. to SDG –4.7) • To help local industry to gain Halal certification and build export potential.
N3	Establishment of PCSIR Laboratories Complex, Multan (Feasibility Study)	CDWP 03.06.2020	30.000	0.000	30.000	<ul style="list-style-type: none"> • To promote quality and excellence in the fruits processing, textile and material science industries to make it globally competitive by introducing novel technologies. • To introduce the post harvest techniques to minimize post harvest losses of fruits like mangoes, citrus and dates. • To develop new value added products for safe wholesome food supply to the community. • To disseminate knowledge to professionals and awareness to general public through workshops, seminars and media to enhance the quality and production. • To impart training/ capacity building in focused areas i.e. value addition, improvement of quality and other industrial processes. • To improve the quality of life by increasing the income of farmers, raw

						<p>material suppliers and other industrial workers through full utilization of valuable indigenous raw material.</p> <ul style="list-style-type: none"> To promote Government policies for reduction of imports by helping food, textile, chemical and engineering industries etc.
N9	Gene Editing of Biological Agents for Nutritional Biochemical and Therapeutical purpose	DDWP 10.12.2020	1799.598	0.000	400.000	<ul style="list-style-type: none"> Establish an advanced gene editing facility at PCSIR along with associated equipment and systems that could be used for a wide range of purposes such as nutritional and therapeutic purposes, leading to indigenous commercial/industrial manufacturing. Develop indigenous strain development/ genetic engineering capability in terms of R&D, design, development and subsequent commercial production of biofoods, biochemicals, biopharmaceuticals, biofertilizers, biopesticides, etc. including biomolecules of industrial importance including vitamins, omega-3, Bioethanol, bio-butanol, industrial enzymes, single cell proteins, poultry feed additives. Develop testing facilities for the quality assurance of developed bio-products and thereafter their subsequent commercialization. Leveraging existing commercial activities, this endeavour could provide new vistas of biotechnology related businesses for the country, thus moving towards knowledge-based economic growth. Build capacity by conducting trainings, workshops, seminars and research capability in advanced techniques of gene editing. Thus, providing technical services by utilizing indigenous resources and saving precious foreign exchange in future.
N12	Cultivation and Processing of Medicinal and Industrial Cannabis on Experimental Fields and Establishment of Testing and Product Development Facilities at PCSIR Laboratories Complex, Lahore, Peshawar and Karachi	DDWP 06.05.2021	1896.820	0.000	300.000	<ul style="list-style-type: none"> To develop experimental fields/ land for cultivation of industrial cannabis. To cultivate industrial cannabis on experimental fields and its processing. To develop and validate analytical methods for testing of industrial cannabis. To conduct research for product development from cannabis. To provide state-of-the-art analytical services to the exporters and industry of cannabis products.
N15	Medical Equipment & Devices Innovation Center (MEDICen) Former Name Centre of Excellence in Medical Equipment Design & Manufacturing	DDWP 27.05.2021	1989.520	0.000	100.000	<ul style="list-style-type: none"> Create a consolidated database of the available resources within the country. These resources include both finished products as well as capabilities for development / co-development of new products and prototypes. This will be done in collaboration with the Healthcare Devices Association of Pakistan, and Surgical Goods Manufacturing Association. Develop initiatives for up-gradation of the existing products in order to make them more profitable for the manufacturers, as well as marketable both within the country and abroad. Establish new product lines from ground-up using research and development channels in academia, with collaboration of the industries. The sub-sectors that the center will focus on will depend on urgency of

						local market, ease of development, and international market trends.
N17	Digital transformation, strengthening and automation of PCSIR	DDWP 27.05.2021	521.060	0.000	350.000	<ul style="list-style-type: none"> • Leverage new digital and information technology and systems, such as enterprise-wide information systems, data analytics, knowledge repository, to enhance efficiency and effectiveness of PCSIR. • To implement modern digital organizational network through replacing existing/ obsolete IT equipment with modern I.T. equipment including servers, routers, switches, computers etc. • To make PCSIR hardware and network infrastructure ready for implementation of e-Office services to be acquired from NITB. • To develop Key software/applications with data driven management dashboards to make a digital automated system for PCSIR to increase transparency, productivity, efficiency and revenue generation. • To strengthen technical manpower in managing, operating and delivering improved IT services in the organization. • To train end-users on operating various systems to be developed under this project.
N18	Establishment of Material Resource Center and Development of Additive Manufacturing & Reverse Engineering Center at PCSIR	DDWP 27.05.2021	1910.590	0.000	300.000	<ul style="list-style-type: none"> • The project aims at establishment/enhancement of facilities for Research and development, materials characterization, Analytical Testing and Quality assurance of materials in the following areas: <ul style="list-style-type: none"> ➤ Advanced Engineering Materials ➤ Electrical / Electronic Materials ➤ Magnetic Materials ➤ Optical / Spectroscopic Materials ➤ Nano technology ➤ Building Materials • Reverse Engineering and Material Identification for development of indigenous materials/ processes/ techniques for import substitution and to assist industrial and academic sector to improve / innovate their products and R&D facilities. • Development of a complete state-of –the art facility for Additive Manufacturing (3-D Printing) and Reverse Engineering • Replacement of high-end equipment/part imports with locally produced 3D printed parts. • Establishment of value chains and end-to-end customer support network for industrial goods and parts. • To establish a strong nexus between researchers, manufacturers and end users and Connecting private and public sector industries, with development of prototypes and end products. • To help industries in exporting valuable/ finished product by providing

						<p>quality evaluation of import/export products/materials.</p> <ul style="list-style-type: none"> • To enhance earning through facilitation of commercials and technical institutes. • Enhancing the PCSIR's technical capability by developing high end prototyping labs for Advanced Thermal Design and High-Power Electronics. • Indirect growth of material industries and additive manufacturing center will generate new employment opportunities and aiding economy by producing more standard products.
N19	Research, Development and Innovation in PCSIR	DDWP 27.05.2021	1500.000	0.000	200.000	<ul style="list-style-type: none"> • Establish an RD&I Programme facility for a variety of purposes in the domain of scientific/ technological/ industrial research such as new technology initiatives, cutting-edge/ advanced R&D, commercialization, digitalization, marketing, industrial-business linkups/partnerships, etc. leading to indigenous commercial/industrial ecosystem. • Develop linkages to facilitate cooperation between research and development facilities at PCSIR, industrial businesses, technology producers and investment platforms. • Leveraging commercial activities, the RD&I Programme could provide new vistas of industrial technology related businesses for the country, thus moving towards knowledge-based economic growth. • Provide support to sustain and improve the essentially required facilities and activities at PCSIR by creating an environment of continuous services for the technological initiatives carried out in collaboration with PCSIR (Public & Private) Partners. • Attracting diaspora to help and download business/finances/projects/opportunities back to Pakistan. • Build capacity by conducting trainings, workshops, seminars and research capability in advanced technologies and services.
N20	Development of Computer Controlled Fermentors and Production of Biochemicals & Bioproducts	DDWP 06.05.2021	1981.607	0.000	335.305	<ul style="list-style-type: none"> • Establish a design and manufacturing facility for computerized automated fermenters and associated equipment and systems for a variety of volume sizes that could be used by a wide range of facilities from lab pilot scale to commercial/industrial manufacturing. • Develop indigenous metabolic engineering capability in terms of R&D, design, development and subsequent commercial production of biochemicals, biopharmaceuticals and bioproducts etc. • Leveraging existing commercial activities, this endeavour could create and open up new vistas of biotechnology related businesses for the country, thus moving towards knowledge-based economic growth. • Develop and upgrade the existing essentially required facilities and infrastructure at PCSIR and ICC/ PAEC. Thus providing establishment of national level integrated bio-processing infrastructure. • Build capacity by conducting trainings, workshops, seminars and research capability in advanced techniques in development of large sized computer controlled fermenters/ bioreactors and biochemical

						<p>production. Thus, providing technical services by utilizing indigenous resources and saving precious foreign exchange in future.</p> <ul style="list-style-type: none"> • Produce local biotechnology industry needs for socio-economic growth of the country and associated spin-off technologies thereof.
N22	Data Repository of Scientific Instrumentation	DDWP 27.05.2021	300.000	0.000	50.000	<ul style="list-style-type: none"> • To provide funds for instrumental access to the research institutions, universities, R & D organizations, and strategic research centers of Pakistan to carry out sample analysis. • To facilitate faculty and research staff of newly developed, as well as existing institutions that lack scientific instrumental facility for conducting their research through the above cited grant. • To create an online data base of scientific instruments available in research centers, institutes, and industries of Pakistan. • To design a nationwide mechanism for enabling ease of access to instrumentations facility present in different R & D, and academic institutions of the country. • To provide a much-needed support to the research and academic institutions of Pakistan to overcome difficulties due to unavailability of high technology instruments. • To assist people working in different institutions of Pakistan by providing them access to much needed instruments. • To facilitate the Strategic Plans Division (SPD) institutions of Pakistan.
Total (New):			12687.175	0.000	2180.305	