GOVERNMENT OF INDIA MINISTRY OF SCIENCE AND TECHNOLOGY DEPARTMENT OF SCIENTIFIC AND INDUSTRIAL RESEARCH

LOK SABHA UNSTARRED QUESTION No. 2128 (TO BE ANSWERED ON 15.03.2017)

RESEARCH PROJECTS OF CSIR

2128. SHRI S.P. MUDDAHANUME GOWDA:

Will the Minister of SCIENCE AND TECHNOLOGY be pleased to state:

- (a) whether the Council of Scientific and Industrial Research (CSIR) has taken up many research projects for new inventions in various fields for the benefit of the common people;
- (b) if so, the details of major projects undertaken by CSIR in various States, including Karnataka during the last three years;
- (c) the budget allocated for the projects, State-wise during the above period; and
- (d) the achievements made so far in these projects?

ANSWER

MINISTER OF STATE FOR SCIENCE AND TECHNOLOGY AND EARTH SCIENCES (SHRI Y. S. CHOWDARY)

- (a) (b)&(c) The Council of Scientific and Industrial Research (CSIR), through its constituent laboratories, is implementing 158 projects as a part of its 12th Five Year Plan. The details of major projects, undertaken by CSIR in various States, including Karnataka during the last three years are in Annexure-I.
- (d) The significant achievements made so far in these projects are in Annexure-II.

State-wise, Laboratory-wise, Project-wise Budget Expenditure during 2013-14 to 2015-16

				Rs. Lakh
	Title of the Project	2013-14	2014-15	2015-16
	ate / U.T.: Assam aboratory: CSIR-North East Institute of Science & Technology (CSI	R-NEIST), Jor	hat	
1	New initiatives to boost agriculture productivity through maximizing pre-	35.632	35.820	41.760
	and post-harvest yields (AGROPATHY)			
2	Bioprospection of plant resources and other natural products (BioprosPR)	15.789	13.225	16.400
3	Plant Diversity: Studying adaptation biology and understanding/exploiting medicinally important plants for useful bioactives (SIMPLE)	50.753	19.240	29.180
4	Introduction, domestication, improvement and cultivation of economically important plants (AGTEC)	30.062	31.568	31.447
5	Integrated NextGen approaches in health disease and environmental toxicity (INDEPTH)	37.497	23.625	24.250
6	Nanomaterials: Applications and Impact on Safety, Health and Environment (NanoSHE)	33.011	26.120	22.660
7	Therapeutics of Chronic Obstructive Pulmonary Disease (COPD) and Related Respiratory Disorders (TREAT)	32.355	11.190	14.000
8	Plant-Microbe and Soil Interactions (PMSI)	22.577	19.179	24.590
9	S&T interventions to combat malnutrition in women and children (HCP07)	2.589	12.684	15.443
10	Zero Emission Research Initiative for Solid Wastes from Leather (ZERIS)	12.637	14.250	26.700
11	Membrane & Adsorbent Technology Platform for Effective Separation of Gases and Liquids (MATES)	94.958	47.744	38.080
12	Biocatalysts for Industrial Applications & Greener Organic Synthesis (BIAGOS)	72.482	45.700	34.500
13	Inherently Safer Practices for Industrial Risk Reduction (INSPIRE)	78.530	26.685	30.470
14	Organic reactions in generating innovative and natural scaffolds (ORIGIN)	85.849	80.364	35.500
15	Development of Sustainable Processes for Edible Oils with Health Benefits from Traditional and New Resources (PEOPLE HOPE)	22.437	32.387	17.137
16	Development of Sustainable Waste Management Technologies for Chemical and Allied Industries (SETCA)	52.197	49.451	50.860
17	Biomass to Energy (BioEn)	54.065	36.428	37.992
18	New generation lubricants and additives (GenLube)	74.224	40.745	34.270
19	Catalysts for Speciality Chemicals (CSC)	123.606	100.276	71.160
20	Natural Products as Affordable Healthcare Agents (NaPAHA)	179.840	158.335	97.377
21	Environmental Research Initiative for Paper and Process Industry (ERIPP)	168.975	139.584	104.800
22	Molecules to Materials to Devices (M2D)	46.120	42.548	35.334
23	Speciality Materials based on Engineered Clays (SPECS)	67.649	62.775	57.000
24	Advanced Polyolefins (SPIRIT)	49.808	69.450	50.000

Title of the Project	2013-1		
25 North East Exploration for Pharmaceutical (NEEP)	122.80)2 148.500	83.000
26 Affordable Cancer Therapeutics (ACT)	44.08	78.300	35.088
27 CSIR Advanced Analytical Facility for North East (CAAF-NE)	131.74	10 316.625	26.263
Engineering of Disaster Mitigation and Health Monitoring for Sar Built Environment (EDMISSIBLE)	e and Smart 47.40	9 29.320	17.680
9 CSIR Knowledge Gateway and Open Source Private Cloud Infra (KNOWGATE)	astructure 0.00	0.000	9.460
O Advanced Research in Engineering & Earth Sciences: Data inte modelling and crowd sourcing approach (ARIEES)	nsive 21.39	19.600	15.700
1 Probing the Changing Atmosphere and its Impacts in Indo-Gang (IGP) and Himalayan Regions (AIM-IGPHim)			
Total : CSIR-NEIST	1838.17		
Total Assam	1838.17		1136.085
Laboratory: CSIR-Central Scientific Instruments Organ Nanomaterials: Applications and Impact on Safety, Health and I	•	_	7.201
	•	nandigarh	
1 Nanomaterials: Applications and Impact on Safety, Health and E (NanoSHE)	environment 12.69	93 7.041	7.201
 Effective Application of Community Health Efforts through New Based Modes (EACH-IT) 	Age, IT 0.00	00 5.418	4.311
3 Zero Emission Research Initiative for Solid Wastes from Leathe	r (ZERIS) 5.50	00 6.364	10.144
4 Engineering of Disaster Mitigation and Health Monitoring for Sar Built Environment (EDMISSIBLE)	e and Smart 86.50	08 29.332	24.500
Development of Novel CSIR Technologies for Manufacturing Ta Patient-Specific Bioceramic Implants and Biomedical Devices a Cost (BIOCERAM)		18.865	6.761
6 Development and Application of Technologies for Sustainable Transportation (SUSTRANS)	9.27	77 6.310	3.999
7 Innovative Technologies for Health Assessment and Damage M Structures (I-HEAL)	litigation of 30.11	3 41.647	34.350
,			
	21.95	59 27.806	12.691
8 Robotics and Micro Machines (ROuM)	21.95 37.2 ²		12.691 30.064
Robotics and Micro Machines (ROuM) Autonomous Underwater Robotics (UnWaR)		38.371	30.064
Robotics and Micro Machines (ROuM) Autonomous Underwater Robotics (UnWaR) Clean Water: Sustainable Options (Clean Water)	37.2 ² 0.00	38.371 00 14.983	30.064 50.926
 8 Robotics and Micro Machines (ROuM) 9 Autonomous Underwater Robotics (UnWaR) 0 Clean Water: Sustainable Options (Clean Water) 1 CSIR Knowledge Gateway and Open Source Private Cloud Infra 	37.2 ⁴ 0.00 astructure 0.00	38.371 00 14.983 00 0.000	30.064 50.926

Rs. Lakh

2013-14 1908.739 H), Chandigal 48.700 15.740 264.953 7.240 28.700 27.875 226.725 1187.863	48.086 20.580 59.999 8.971 28.775 25.749	2015-16
48.700 15.740 264.953 7.240 28.700 27.875 226.725	48.086 20.580 59.999 8.971 28.775 25.749	53.101 23.128 66.638 14.150 35.212
48.700 15.740 264.953 7.240 28.700 27.875 226.725	48.086 20.580 59.999 8.971 28.775 25.749	23.128 66.638 14.150 35.212
15.740 264.953 7.240 28.700 27.875 226.725	20.580 59.999 8.971 28.775 25.749	23.128 66.638 14.150 35.212
264.953 7.240 28.700 27.875 226.725	59.999 8.971 28.775 25.749	66.638 14.150 35.212
264.953 7.240 28.700 27.875 226.725	59.999 8.971 28.775 25.749	66.638 14.150 35.212
7.240 28.700 27.875 226.725	8.971 28.775 25.749	14.150 35.212
28.700 27.875 226.725	28.775 25.749	35.212
27.875 226.725	25.749	
226.725		22.250
1187.863	209.603	294.792
	556.755	1428.907
278.417	277.191	293.600
425.309	321.889	389.500
297.751	239.509	367.922
273.764	972.486	1526.314
5.400	4.100	5.755
17.095	15.351	13.350
7.942	10.701	14.434
0.000	6.572	2.735
	2806.317	4551.787
5022.213	6024.611	6526.275
	297.751 273.764 5.400 17.095 7.942 0.000	297.751 239.509 273.764 972.486 5.400 4.100 17.095 15.351 7.942 10.701 0.000 6.572 3113.474 2806.317 5022.213 6024.611

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	Title of the Project	2013-14	2014-15	2015-16
4	Innovative Technologies for Health Assessment and Damage Mitigation of Structures (I-HEAL)	19.623	14.369	16.266
5	Autonomous Underwater Robotics (UnWaR)	24.504	32.756	38.650
6	Evaluation of Economic Loss Due to Idling of Vehicles at Signalized and Mitigation Measures (ELSIM)	104.971	73.125	40.807
7	Development of Indian Highway Capacity Manual (Indo-HCM)	302.180	208.596	117.806
8	Clean Water: Sustainable Options (Clean Water)	1.594	3.400	4.000
9	CSIR Knowledge Gateway and Open Source Private Cloud Infrastructure (KNOWGATE)	5.390	0.936	0.000
10	Vulnerability assessment and development of adaption strategies for climate change impact with special reference to coasts and island ecosystems of India (VACCIN)	0.000	0.000	54.889
11	Probing the Changing Atmosphere and its Impacts in Indo-Gangetic Plains (IGP) and Himalayan Regions (AIM-IGPHim)	6.872	5.808	6.984
	Total : CSIR-CRRI	905.735	687.938	651.166
L	aboratory: Council of Scientific & Industrial Research (CSIR-HQ)			
1	Genomics and Informatics Solutions for Integrating Biology (GENESIS)	3.734	4.762	6.009
2	S&T interventions to combat malnutrition in women and children (HCP07)	0.000	0.020	0.146
3	CSIR Knowledge Gateway and Open Source Private Cloud Infrastructure (KNOWGATE)	0.000	0.000	3.565
4	Patinformatics (Patinformatics)	91.225		126.350
5	Chembioinformatics for Drug Discovery (ISC0203)	80.943	88.944	114.370
6	Open Science and Open Innovation Infrastructure (OSOII)	85.738	118.652	79.492
	Total : CSIR-HQ	261.640	314.387	329.931
L	aboratory: CSIR-Institute of Genomic & Integrative Biology (CSIR-Id	GIB), New De	lhi	
1	New Approaches Towards Understanding of Disease Dynamics and to	42.300	21.049	29.653
	Accelerate Drug Discovery (UNDO)			
2	Emerging and re-emerging challenges in infectious diseases: Systems based drug design for infectious diseases (SPIenDID)	21.350	33.305	20.345
3	Integrated NextGen approaches in health disease and environmental toxicity (INDEPTH)	54.365	36.810	34.834
4	Nanomaterials: Applications and Impact on Safety, Health and Environment (NanoSHE)	23.170	12.287	16.767
5	Therapeutics of Chronic Obstructive Pulmonary Disease (COPD) and Related Respiratory Disorders (TREAT)	156.213	140.610	174.595
6	Epigenetics in Health and Disease (EpiHeD)	117.625	114.224	75.609
7	Centre for BIOtherapeutic Molecule DISCOVERY (BIODISCOVERY)	31.900	26.998	29.574

				Rs. Lakh
	Title of the Project	2013-14	2014-15	2015-16
8	Genomics and Informatics Solutions for Integrating Biology (GENESIS)	69.703	55.743	40.979
9	Centre for Cardiovascular and Metabolic Disease Research (CARDIOMED)	1292.175	737.906	898.964
10	Genome Dynamics in cellular organization, differentiation and enantiostasis (GenCODE)	865.875	747.885	982.398
11	CSIR-NCL-IGIB Joint Research Initiative: Interfacing Chemistry and Biology (CSIR-NCL-IGIB-JRI)	131.750	144.187	201.934
12	Wellness Genomics Project - Understanding genomic signatures of healthy living in Indian population (WG 100)	439.325	99.961	48.444
13	Towards Understanding skin Cell Homeostasis (TOUCH)	1034.052	676.946	881.238
14	Effective Application of Community Health Efforts through New Age, IT Based Modes (EACH-IT)	0.000	49.787	82.010
15	Visualisation of Organisms in Action (VISION)	123.000	105.602	1209.136
16	Advance Drug Delivery System (ADD)	3.650	4.570	5.992
17	Centre of Excellence: Waste Utilization and Management (WUM)	14.390	6.706	8.686
18	Clean Water: Sustainable Options (Clean Water)	0.000	10.987	15.475
19	CSIR Knowledge Gateway and Open Source Private Cloud Infrastructure (KNOWGATE)	0.000	3.997	0.880
20	Vulnerability assessment and development of adaption strategies for climate change impact with special reference to coasts and island ecosystems of India (VACCIN)	0.000	0.000	73.836
	Total : CSIR-IGIB	4420.842	3029.560	4831.351
I	aboratory: CSIR-National Institute of Science Communication and Resources (CSIR-NISCAIR), New Delhi	Information		
1	CSIR Knowledge Gateway and Open Source Private Cloud Infrastructure	89.934	117.431	68.609
	(KNOWGATE)			
2	Vulnerability assessment and development of adaption strategies for climate change impact with special reference to coasts and island ecosystems of India (VACCIN)	0.000	0.000	121.181
3	CSIRWide Consortium Access to Online Information Resources (NKRC)		1920.772	2016.825
	Total : CSIR-NISCAIR	1902.580	2038.203	2206.615
I	aboratory: CSIR-National Institute of Science, Technology and Dev (CSIR-NISTADS), New Delhi	elopment St	udies	
1	Indian S&T and Innovation Policy (ISTIP)	186.386	212.330	103.709
	Total : CSIR-NISTADS	186.386	212.330	103.709
L	aboratory: CSIR-National Physical Laboratory (CSIR-NPL), New De	lhi		
1	Nanomaterials: Applications and Impact on Safety, Health and Environment (NanoSHE)	75.295	10.277	10.860
	(NICHON HILL)			

Title of the Project	2013-14	2014-15	2015-16
	11.067	10.134	15.630
Development of Novel CSIR Technologies for Manufacturing Tailored and Patient-Specific Bioceramic Implants and Biomedical Devices at Affordable Cost (BIOCERAM)	18.416	5.762	9.862
CSIR Knowledge Gateway and Open Source Private Cloud Infrastructure (KNOWGATE)	2.386	1.601	0.000
Very High Power Microwave Tubes : Design and Development Capabilities (MTDDC)	14.898	10.552	17.391
Research Initiative on Nano Devices and Nano-Sensors (R-Nano)	85.661	19.401	18.049
Development of Advanced Materials for Next-Generation Energy-Efficient Devices (D-NEED)	278.850	138.874	934.129
Advanced Quantum Research and Innovation with Ultra Small Systems (AQuaRIUS)	511.438	6.073	386.126
Measurement for Innovation in Science & Technology (MIST)	514.154	437.054	807.339
Probing the Changing Atmosphere and its Impacts in Indo-Gangetic Plains (IGP) and Himalayan Regions (AIM-IGPHim)	421.657	0.000	320.425
Research and Development on Single Trapped Ion based Frequency Standard (STIOS)	285.399	52.595	219.952
Total : CSIR-NPL	 2219.219	 692.323	2739.764
for preventing misappropriation of India's Traditional Knowledge (TKDL)	208.684	121.517	131.860
Total : CSIR-TKDL	208.684	121.517	131.860
otal Delhi 	10105.088	13120.869	10994.397
ate / U.T. : Goa aboratory: CSIR-National Institute of Oceanography(CSIR-NIO), Do	ona Paula		
ate / U.T.: Goa aboratory: CSIR-National Institute of Oceanography(CSIR-NIO), Do Integrated NextGen approaches in health disease and environmental		13120.869 52.740	73.670
ate / U.T.: Goa aboratory: CSIR-National Institute of Oceanography(CSIR-NIO), Do Integrated NextGen approaches in health disease and environmental toxicity (INDEPTH)	ona Paula 56.693	52.740	73.670
ate / U.T.: Goa aboratory: CSIR-National Institute of Oceanography(CSIR-NIO), Do Integrated NextGen approaches in health disease and environmental toxicity (INDEPTH) Autonomous Underwater Robotics (UnWaR)	ona Paula 56.693 77.044	52.740 110.260	73.670 123.700
ate / U.T.: Goa aboratory: CSIR-National Institute of Oceanography(CSIR-NIO), Do Integrated NextGen approaches in health disease and environmental toxicity (INDEPTH) Autonomous Underwater Robotics (UnWaR) CSIR Knowledge Gateway and Open Source Private Cloud Infrastructure (KNOWGATE)	ona Paula 56.693 77.044 5.645	52.740 110.260 2.328	73.670 123.700 0.000
ate / U.T.: Goa aboratory: CSIR-National Institute of Oceanography(CSIR-NIO), Do Integrated NextGen approaches in health disease and environmental toxicity (INDEPTH) Autonomous Underwater Robotics (UnWaR) CSIR Knowledge Gateway and Open Source Private Cloud Infrastructure	ona Paula 56.693 77.044	52.740 110.260	73.670 123.700
ate / U.T.: Goa aboratory: CSIR-National Institute of Oceanography(CSIR-NIO), Do Integrated NextGen approaches in health disease and environmental toxicity (INDEPTH) Autonomous Underwater Robotics (UnWaR) CSIR Knowledge Gateway and Open Source Private Cloud Infrastructure (KNOWGATE) Advanced Research in Engineering & Earth Sciences: Data intensive	ona Paula 56.693 77.044 5.645	52.740 110.260 2.328	73.670 123.700 0.000
	Intelligent Coatings (IntelCoat) Development of Novel CSIR Technologies for Manufacturing Tailored and Patient-Specific Bioceramic Implants and Biomedical Devices at Affordable Cost (BIOCERAM) CSIR Knowledge Gateway and Open Source Private Cloud Infrastructure (KNOWGATE) Very High Power Microwave Tubes: Design and Development Capabilities (MTDDC) Research Initiative on Nano Devices and Nano-Sensors (R-Nano) Development of Advanced Materials for Next-Generation Energy-Efficient Devices (D-NEED) Advanced Quantum Research and Innovation with Ultra Small Systems (AQuaRIUS) Measurement for Innovation in Science & Technology (MIST) Probing the Changing Atmosphere and its Impacts in Indo-Gangetic Plains (IGP) and Himalayan Regions (AIM-IGPHim) Research and Development on Single Trapped Ion based Frequency Standard (STIOS) Total: CSIR-NPL aboratory: CSIR-Traditional Knowledge Digital Library, HRDC Analysis and Monitoring of patent applications in International Patent Office for preventing misappropriation of India's Traditional Knowledge (TKDL)	Development of Novel CSIR Technologies for Manufacturing Tailored and Patient-Specific Bioceramic Implants and Biomedical Devices at Affordable Cost (BIOCERAM) CSIR Knowledge Gateway and Open Source Private Cloud Infrastructure (KNOWGATE) Very High Power Microwave Tubes: Design and Development Capabilities (MTDDC) Research Initiative on Nano Devices and Nano-Sensors (R-Nano) 85.661 Development of Advanced Materials for Next-Generation Energy-Efficient Devices (D-NEED) Advanced Quantum Research and Innovation with Ultra Small Systems (AQuaRIUS) Measurement for Innovation in Science & Technology (MIST) 514.154 Probing the Changing Atmosphere and its Impacts in Indo-Gangetic Plains (IGP) and Himalayan Regions (AIM-IGPHim) Research and Development on Single Trapped Ion based Frequency 285.399 Standard (STIOS) Total: CSIR-NPL 2219.219 aboratory: CSIR-Traditional Knowledge Digital Library, HRDC Analysis and Monitoring of patent applications in International Patent Office for preventing misappropriation of India's Traditional Knowledge (TKDL)	Intelligent Coatings (IntelCoat) Development of Novel CSIR Technologies for Manufacturing Tailored and Patient-Specific Bioceramic Implants and Biomedical Devices at Affordable Cost (BIOCERAM) CSIR Knowledge Gateway and Open Source Private Cloud Infrastructure (KNOWGATE) Very High Power Microwave Tubes: Design and Development Capabilities (MTDDC) Research Initiative on Nano Devices and Nano-Sensors (R-Nano) Development of Advanced Materials for Next-Generation Energy-Efficient Devices (D-NEED) Advanced Quantum Research and Innovation with Ultra Small Systems (AQuaRIUS) Measurement for Innovation in Science & Technology (MIST) Probing the Changing Atmosphere and its Impacts in Indo-Gangetic Plains (IGP) and Himalayan Regions (AIM-IGPHim) Research and Development on Single Trapped Ion based Frequency 285.399 Total: CSIR-NPL Analysis and Monitoring of patent applications in International Patent Office for preventing misappropriation of India's Traditional Knowledge (TKDL)

	Title of the Project	2013-14	2014-15	2015-16
7	Ocean Science Towards Forecasting Indian Marine Living Resource Potential (Ocean Finder)	1431.380	698.052	1813.580
8	Geological processes in the Indian Ocean - Understanding the input fluxes, sinks and Paleoceanography (GEOSINKS)	218.045	497.156	934.250
9	Geo-scientific investigations for deciphering the Earth's internal processes and exploration of energy resources (GEOSCAPE)	607.634	646.009	530.310
10	Indian Aquatic Ecosystems: Impact of Deoxygenation, Eutrophication and Acidification (INDIAS IDEA)	303.610	199.920	742.643
11	Analyses and Harnessing of Marine Biodiversity for Bioremediation of Aquaculture and Industrial Effluents (MARINEBIOTECH)	93.973	106.320	239.206
	Total : CSIR-NIO	2997.873	2497.760	4562.858
To		2997.873	15618.629	4562.858

State / U.T.: Gujrat

L	aboratory: CSIR-Central Salt & Marine Chemicals Research Institu	te (CSIR-CSN	ICRI), Bhavı	nagar
1	Bioprospection of plant resources and other natural products (BioprosPR)	15.950	26.750	38.080
2	Genomics of Medicinal Plants and Agronomically Important Traits (PlaGen)	7.750	14.422	15.262
3	Plant Diversity: Studying adaptation biology and understanding/exploiting medicinally important plants for useful bioactives (SIMPLE)	67.870	84.980	108.658
4	Plant-Microbe and Soil Interactions (PMSI)	42.856	37.408	39.618
5	Towards Understanding skin Cell Homeostasis (TOUCH)	18.559	17.605	21.905
6	Multifunctional electrodes and Electrolytes for Future Technologies (MUTLIFUN)	8.975	5.090	12.402
7	Clean Coal Technology (TapCoal)	139.870	80.987	53.466
8	Membrane & Adsorbent Technology Platform for Effective Separation of Gases and Liquids (MATES)	89.170	67.250	54.492
9	Potassic (K) fertilizer Technology to Empower the Nation (K-TEN)	345.300	517.630	613.086
10	Intelligent Coatings (IntelCoat)	7.025	4.310	5.450
11	Energy Efficient Technologies (E2++)	3.458	5.193	6.856
12	Biomass to Energy (BioEn)	83.719	84.128	130.945
13	Waste to Wealth - Waste plastics (W2W)	43.685	32.818	39.190
14	Hydrogen Energy: Overcoming materials challenges in PEMFC towards generation, separation, storage and conversion of hydrogen (HYDEN)	14.300	7.440	9.510
15	Innovate, develop and up-scale modular, agile, intensified and continuous processes and plants (Indus MAGIC)	134.250	118.838	119.455

2015-16	2014-15	2013-14	Title of the Project
15.078	17.239	15.494	A Multi-Scale Simulation and Modeling Approach to Designing Smart Functional Materials for use in Energy, Electrochemistry and Bio-mimetics (MSM)
14.000	13.500	10.400	Natural Products as Affordable Healthcare Agents (NaPAHA)
22.688	20.340	12.500	Environmental Research Initiative for Paper and Process Industry (ERIPP)
38.852	45.450	34.955	Molecules to Materials to Devices (M2D)
21.197	17.337	37.700	Speciality Materials based on Engineered Clays (SPECS)
719.161	600.916	592.765	High Purity Salt & Recovery of Valuable Metal Ions from Marine Resources (HPSMC)
9.050	6.050	0.000	Clean Water: Sustainable Options (Clean Water)
10.120	0.000	0.000	CSIR Knowledge Gateway and Open Source Private Cloud Infrastructure (KNOWGATE)
67.176	0.000	0.000	Vulnerability assessment and development of adaption strategies for climate change impact with special reference to coasts and island ecosystems of India (VACCIN)
12.870	4.333	7.260	Ocean Science Towards Forecasting Indian Marine Living Resource Potential (Ocean Finder)
2198.567	1830.014	1733.810	Total : CSIR-CSMCRI
2198.567	 17448.643	1733.810	 Гotal Gujrat

State / U.T.: Himachal Pradesh

L	.aboratory: CSIR-Institute of Himalayan Bioresource Technology (C	SIR-IHBT), P	alampur	
1	New initiatives to boost agriculture productivity through maximizing pre-	100.215	77.499	88.680
	and post-harvest yields (AGROPATHY)			
2	Bioprospection of plant resources and other natural products (BioprosPR)	33.600	39.994	49.392
3	Genomics of Medicinal Plants and Agronomically Important Traits (PlaGen)	146.000	86.390	159.800
4	Plant Diversity: Studying adaptation biology and understanding/exploiting medicinally important plants for useful bioactives (SIMPLE)	668.510	245.843	434.040
5	Introduction, domestication, improvement and cultivation of economically important plants (AGTEC)	130.656	96.232	124.289
6	Integrated NextGen approaches in health disease and environmental toxicity (INDEPTH)	72.844	27.520	20.390
7	Nanomaterials: Applications and Impact on Safety, Health and Environment (NanoSHE)	10.320	6.660	9.880
8	Plant-Microbe and Soil Interactions (PMSI)	78.940	86.027	115.939
9	Epigenetics in Health and Disease (EpiHeD)	72.765	26.922	22.930
10	Genomics and Informatics Solutions for Integrating Biology (GENESIS)	5.920	64.530	9.669

	Title of the Project	2013-14	2014-15	2015-16
 I 1	S&T interventions to combat malnutrition in women and children (HCP07)	10.995	22.440	27.320
2	Establishment of Centre for High Altitude Biology (CeHAB)	222.927	355.047	461.400
3	Process and Products from Himalayan Region and their toxicological evaluation (PROMOTE)	180.897	250.690	236.840
4	Plant Breeding, Genomics and Biotechnology (PLOMICS)	42.125	54.540	63.160
5	Organic reactions in generating innovative and natural scaffolds (ORIGIN)	21.720	25.063	28.650
3	Natural Products as Affordable Healthcare Agents (NaPAHA)	15.200	14.340	17.116
7	CSIR Knowledge Gateway and Open Source Private Cloud Infrastructure (KNOWGATE)	5.645	2.355	0.000
3	Advanced Instrumentation Solutions for Health Care and Agro-based Applications (ASHA)	34.025	16.500	20.100
9	Probing the Changing Atmosphere and its Impacts in Indo-Gangetic Plains (IGP) and Himalayan Regions (AIM-IGPHim)	18.492	11.638	15.984
	Total : CSIR-IHBT	1871.798	1510.230	1905.578
	otal Himachal Pradesh ate / U.T. : Jammu & Kashmir	1871.798 	18958.873 	1905.578
St	ate / U.T. : Jammu & Kashmir .aboratory: CSIR-Indian Institute of Integrative Medicine(CSIR-IIIM)	, Jammu		
 St L 1	ate / U.T.: Jammu & Kashmir aboratory: CSIR-Indian Institute of Integrative Medicine(CSIR-IIIM) Bioprospection of plant resources and other natural products (BioprosPR)	, Jammu 33.200	47.349	
 St 1	cate / U.T.: Jammu & Kashmir Laboratory: CSIR-Indian Institute of Integrative Medicine(CSIR-IIIM) Bioprospection of plant resources and other natural products (BioprosPR) Genomics of Medicinal Plants and Agronomically Important Traits (PlaGen)	, Jammu 33.200 0.000	47.349 0.020	59.312
 St L 1	ate / U.T.: Jammu & Kashmir aboratory: CSIR-Indian Institute of Integrative Medicine(CSIR-IIIM) Bioprospection of plant resources and other natural products (BioprosPR)	, Jammu 33.200	47.349	
 St 1 2	cate / U.T.: Jammu & Kashmir Laboratory: CSIR-Indian Institute of Integrative Medicine(CSIR-IIIM) Bioprospection of plant resources and other natural products (BioprosPR) Genomics of Medicinal Plants and Agronomically Important Traits (PlaGen) Medicinal Chemistry for stem cell biology and regenerative medicine	, Jammu 33.200 0.000	47.349 0.020	59.312
 St 1 2 3	cate / U.T.: Jammu & Kashmir Laboratory: CSIR-Indian Institute of Integrative Medicine(CSIR-IIIM) Bioprospection of plant resources and other natural products (BioprosPR) Genomics of Medicinal Plants and Agronomically Important Traits (PlaGen) Medicinal Chemistry for stem cell biology and regenerative medicine (MEDCHEM) Plant Diversity: Studying adaptation biology and understanding/exploiting	, Jammu 33.200 0.000 284.779	47.349 0.020 213.050	59.312 271.950
 St 1 2 3 4	cate / U.T.: Jammu & Kashmir Laboratory: CSIR-Indian Institute of Integrative Medicine(CSIR-IIIM) Bioprospection of plant resources and other natural products (BioprosPR) Genomics of Medicinal Plants and Agronomically Important Traits (PlaGen) Medicinal Chemistry for stem cell biology and regenerative medicine (MEDCHEM) Plant Diversity: Studying adaptation biology and understanding/exploiting medicinally important plants for useful bioactives (SIMPLE) Introduction, domestication, improvement and cultivation of economically	, Jammu 33.200 0.000 284.779 83.929	47.349 0.020 213.050 74.460	59.312 271.950 68.679
 St L 1 2 3 4 5	Cate / U.T.: Jammu & Kashmir Laboratory: CSIR-Indian Institute of Integrative Medicine(CSIR-IIIM) Bioprospection of plant resources and other natural products (BioprosPR) Genomics of Medicinal Plants and Agronomically Important Traits (PlaGen) Medicinal Chemistry for stem cell biology and regenerative medicine (MEDCHEM) Plant Diversity: Studying adaptation biology and understanding/exploiting medicinally important plants for useful bioactives (SIMPLE) Introduction, domestication, improvement and cultivation of economically important plants (AGTEC) Plant-Microbe and Soil Interactions (PMSI)	, Jammu 33.200 0.000 284.779 83.929 90.318	47.349 0.020 213.050 74.460 116.447	59.312 271.950 68.679 196.231
St L 1 2 3 4 5 6 7	Tate / U.T.: Jammu & Kashmir Laboratory: CSIR-Indian Institute of Integrative Medicine(CSIR-IIIM) Bioprospection of plant resources and other natural products (BioprosPR) Genomics of Medicinal Plants and Agronomically Important Traits (PlaGen) Medicinal Chemistry for stem cell biology and regenerative medicine (MEDCHEM) Plant Diversity: Studying adaptation biology and understanding/exploiting medicinally important plants for useful bioactives (SIMPLE) Introduction, domestication, improvement and cultivation of economically important plants (AGTEC) Plant-Microbe and Soil Interactions (PMSI)	, Jammu 33.200 0.000 284.779 83.929 90.318 125.636	47.349 0.020 213.050 74.460 116.447 51.981	59.312 271.950 68.679 196.231 89.500
St L 1 2 3 4 5	Tate / U.T.: Jammu & Kashmir Laboratory: CSIR-Indian Institute of Integrative Medicine(CSIR-IIIM) Bioprospection of plant resources and other natural products (BioprosPR) Genomics of Medicinal Plants and Agronomically Important Traits (PlaGen) Medicinal Chemistry for stem cell biology and regenerative medicine (MEDCHEM) Plant Diversity: Studying adaptation biology and understanding/exploiting medicinally important plants for useful bioactives (SIMPLE) Introduction, domestication, improvement and cultivation of economically important plants (AGTEC) Plant-Microbe and Soil Interactions (PMSI) Centre for BIOtherapeutic Molecule DISCOVERY (BIODISCOVERY) Nurturing a new Pan-CSIR drug pipe line: high intensity preclinical, clinical	33.200 0.000 284.779 83.929 90.318 125.636 4.054	47.349 0.020 213.050 74.460 116.447 51.981 13.649	59.312 271.950 68.679 196.231 89.500 11.599
St L 1 2 3 4 5 6 7 8 9	Tate / U.T.: Jammu & Kashmir Laboratory: CSIR-Indian Institute of Integrative Medicine(CSIR-IIIM) Bioprospection of plant resources and other natural products (BioprosPR) Genomics of Medicinal Plants and Agronomically Important Traits (PlaGen) Medicinal Chemistry for stem cell biology and regenerative medicine (MEDCHEM) Plant Diversity: Studying adaptation biology and understanding/exploiting medicinally important plants for useful bioactives (SIMPLE) Introduction, domestication, improvement and cultivation of economically important plants (AGTEC) Plant-Microbe and Soil Interactions (PMSI) Centre for BIOtherapeutic Molecule DISCOVERY (BIODISCOVERY) Nurturing a new Pan-CSIR drug pipe line: high intensity preclinical, clinical studies on lead candidates (DPL)	, Jammu 33.200 0.000 284.779 83.929 90.318 125.636 4.054 758.515	47.349 0.020 213.050 74.460 116.447 51.981 13.649 973.166	59.312 271.950 68.679 196.231 89.500 11.599 723.461
 St 1 2 3 4 5 6 7 8	Tate / U.T.: Jammu & Kashmir Laboratory: CSIR-Indian Institute of Integrative Medicine(CSIR-IIIM) Bioprospection of plant resources and other natural products (BioprosPR) Genomics of Medicinal Plants and Agronomically Important Traits (PlaGen) Medicinal Chemistry for stem cell biology and regenerative medicine (MEDCHEM) Plant Diversity: Studying adaptation biology and understanding/exploiting medicinally important plants for useful bioactives (SIMPLE) Introduction, domestication, improvement and cultivation of economically important plants (AGTEC) Plant-Microbe and Soil Interactions (PMSI) Centre for BIOtherapeutic Molecule DISCOVERY (BIODISCOVERY) Nurturing a new Pan-CSIR drug pipe line: high intensity preclinical, clinical studies on lead candidates (DPL) Towards Understanding skin Cell Homeostasis (TOUCH) CSIR Knowledge Gateway and Open Source Private Cloud Infrastructure	, Jammu 33.200 0.000 284.779 83.929 90.318 125.636 4.054 758.515 33.716 5.645	47.349 0.020 213.050 74.460 116.447 51.981 13.649 973.166 23.103	59.312 271.950 68.679 196.231 89.500 11.599 723.461 36.429

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				Rs. Lakh
	Title of the Project	2013-14	2014-15	
٦	 Гotal Jammu & Kashmir 	1419.791	20474.426	1457.161
St	ate / U.T. : Jharkhand			
L	aboratory: CSIR-Central Institute of Mining & Fuel Research (CSIF	R-CIMFR), Dha	anbad	
1	Clean Coal Technology (TapCoal)	141.074	273.823	107.970
2	Potassic (K) fertilizer Technology to Empower the Nation (K-TEN)	92.510	96.215	44.784
3	Advanced ceramics materials and components for energy and structural application (CERMESA)	14.959	11.510	7.825
4	Development of a technology for optimal extraction of locked-up coal from underground mines using artificial pillars (DeCoalArt)	236.310	353.152	132.169
5	Development of Zero Waste Technology for Processing and Utilization of Thermal Coal (ZWT-CUP)	7.739	9.684	11.489
6	Robotics and Micro Machines (ROuM)	48.194	25.800	33.227
7	Development of underground coal gasification technology in India (CoalGasUrja)	137.897	328.924	71.680
8	Development of suitable design methodology for extraction of coal at greater depths (>300 m) for Indian geomining conditions (DeepCoal)	465.356	450.567	109.260
9	National Clean Air Mission (NCAM)	7.896	6.257	5.452
0	CSIR Knowledge Gateway and Open Source Private Cloud Infrastructure (KNOWGATE)	0.000	0.000	7.085
	Total : CSIR-CIMFR	1151.936	1555.932	530.943
L	aboratory: CSIR-National Metallurgical Laboratory (CSIR-NML), Ja	mshedpur		
1	Sustainable Technologies for the Utilization of Rare Earths (SURE)	29.145	12.777	16.584
2	Development of Novel CSIR Technologies for Manufacturing Tailored and Patient-Specific Bioceramic Implants and Biomedical Devices at Affordable Cost (BIOCERAM)	18.251	9.339	10.823
3	Advanced ceramics materials and components for energy and structural application (CERMESA)	4.396	8.369	10.029
4	Development of Zero Waste Technology for Processing and Utilization of Thermal Coal (ZWT-CUP)	102.234	105.609	204.382
5	Development of Magnesium Metal Production Technology (MPT)	301.787	99.259	99.253
6	CSIR Knowledge Gateway and Open Source Private Cloud Infrastructure (KNOWGATE)	0.000	4.655	2.849
7	Very High Power Microwave Tubes : Design and Development Capabilities (MTDDC)	17.410	19.139	17.619
8	Measurement for Innovation in Science & Technology (MIST)	4.000	5.353	40.088
	Total - CCID NIMI			

Total: CSIR-NML

401.628

477.223 264.500

			Rs. Lakh
Title of the Project		2014-15	2015-16
Total Jharkhand	1629.159		932.571
State / U.T.: Karnataka			
Laboratory: CSIR-Fourth Paradigm Institute (CSIR-4PI), Benga	aluru		
1 Genomics and Informatics Solutions for Integrating Biology (GENESIS)	7.704	5.142	5.145
2 Engineering of Disaster Mitigation and Health Monitoring for Safe and S Built Environment (EDMISSIBLE)	Smart 31.826	19.139	7.566
3 Development of suitable design methodology for extraction of coal at greater depths (>300 m) for Indian geomining conditions (DeepCoal)	1.600	1.885	1.299
4 Advanced Research in Engineering & Earth Sciences: Data intensive modelling and crowd sourcing approach (ARiEES)	548.994	593.413	358.831
5 Vulnerability assessment and development of adaption strategies for climate change impact with special reference to coasts and island ecosystems of India (VACCIN)	0.000	0.000	36.949
6 Indian Aquatic Ecosystems: Impact of Deoxygenation, Eutrophication at Acidification (INDIAS IDEA)	nd 4.397	7.120	8.978
7 Probing the Changing Atmosphere and its Impacts in Indo-Gangetic Pla (IGP) and Himalayan Regions (AIM-IGPHim)	ains 5.341	6.437	11.243
Total : CSIR-4PI	599.861	633.136	430.012
Laboratory: CSIR-Central Food Technological Research Instit	tute (CSIR-CFTRI), I	/lysore	
1 New Approaches Towards Understanding of Disease Dynamics and to	20.500	9.680	11.720
Accelerate Drug Discovery (UNDO)			
2 New initiatives to boost agriculture productivity through maximizing pre- and post-harvest yields (AGROPATHY)	633.750	584.984	546.228
3 Bioprospection of plant resources and other natural products (BioprosP	R) 6.700	9.755	12.400
4 Nanomaterials: Applications and Impact on Safety, Health and Environm (NanoSHE)	ment 2.750	3.300	5.300
5 S&T interventions to combat malnutrition in women and children (HCP0	17) 12.225	21.260	27.772
6 Wellness through Foods and Nutraceuticals (WELFO)	295.220	287.050	233.609
7 Lipidomics Center (LIPIC)	763.316	144.949	147.695
8 Creation of Advanced Research Facility in Molecular Nutrition (Nutri-AR	RM) 153.852	93.640	139.177
9 Zero Emission Research Initiative for Solid Wastes from Leather (ZERIS	S) 49.230	47.468	48.720
10 Membrane & Adsorbent Technology Platform for Effective Separation of Gases and Liquids (MATES)	f 8.160	9.698	9.796
1 Development of Sustainable Processes for Edible Oils with Health Benefrom Traditional and New Resources (PEOPLE HOPE)	efits 3.899	4.676	6.196
12 Encapsulated Microorganisms for Environmental Protection (EMEP)	35.060	35.390	27.880

Rs. Lakh

	Title of the Project	2013-14	2014-15	2015-1
	CSIR Knowledge Gateway and Open Source Private Cloud Infrastructure (KNOWGATE)	5.265	2.328	0.00
14	Measurement for Innovation in Science & Technology (MIST)	11.440	6.880	7.32
	Total : CSIR-CFTRI	2001.367	1261.058	1223.81
L	aboratory: CSIR-National Aerospace Laboratories (CSIR-NAL), Be	ngaluru		
1	Novel Energy Effective Metallic Materials for Automotive and General	48.728	6.800	9.30
	Engineering Application (LWM)			
	Development of Novel CSIR Technologies for Manufacturing Tailored and Patient-Specific Bioceramic Implants and Biomedical Devices at Affordable Cost (BIOCERAM)	65.433	18.489	20.56
	Advanced ceramics materials and components for energy and structural application (CERMESA)	12.532	2.696	3.03
	Development and Application of Technologies for Sustainable Transportation (SUSTRANS)	12.920	1.875	2.75
5	Technology Solutions for Micro Air Vehicle Development (MAT)	648.206	286.785	245.07
6	Robotics and Micro Machines (ROuM)	65.774	18.361	21.45
7	Avionics and Flight Controls Civil Aerospace Technologies (AFCCAT)	0.000	348.587	452.08
8	Advanced Structural Technologies for Aircraft (ASTA)	320.277	369.644	479.57
	Aerodynamics and Propulsion Technologies for Next Generation Civil Aircraft (ADPR)	0.000	339.808	691.08
10	Transport Aircraft Design Bureau (TADB)	0.000	115.843	87.11
	Augmentation and Refurbishment of National Trisonic Aerodynamic Facilities (NTAF)	148.418	260.875	193.88
	CSIR Knowledge Gateway and Open Source Private Cloud Infrastructure (KNOWGATE)	0.000	6.905	2.85
	Advanced Research in Engineering & Earth Sciences: Data intensive modelling and crowd sourcing approach (ARiEES)	43.400	14.650	18.40
	Total : CSIR-NAL	1365.688	1791.318	2227.15
	 tal Karnataka	3966.916		3880.98

Threads of Complex Diseases (THUNDER)

2 New Approaches Towards Understanding of Disease Dynamics and to Accelerate Drug Discovery (UNDO)

11.000

13.580

16.540

	Title of the Project	2013-14	2014-15	2015-16
3	New initiatives to boost agriculture productivity through maximizing preand post-harvest yields (AGROPATHY)	16.215	28.820	23.769
4	Bioprospection of plant resources and other natural products (BioprosPR)	5.245	5.736	7.250
5	Integrated NextGen approaches in health disease and environmental toxicity (INDEPTH)	9.595	4.475	5.890
6	Nanomaterials: Applications and Impact on Safety, Health and Environment (NanoSHE)	18.820	10.540	12.020
7	Plant-Microbe and Soil Interactions (PMSI)	8.750	7.638	11.250
8	Centre for BIOtherapeutic Molecule DISCOVERY (BIODISCOVERY)	7.700	3.973	5.700
9	Genomics and Informatics Solutions for Integrating Biology (GENESIS)	8.975	11.050	18.100
10	S&T interventions to combat malnutrition in women and children (HCP07)	7.593	29.112	38.750
11	Multifunctional electrodes and Electrolytes for Future Technologies (MUTLIFUN)	17.040	14.155	51.940
12	Organic reactions in generating innovative and natural scaffolds (ORIGIN)	77.000	51.500	85.000
13	Development of Sustainable Processes for Edible Oils with Health Benefits from Traditional and New Resources (PEOPLE HOPE)	69.277	52.112	47.822
14	Intelligent Coatings (IntelCoat)	102.300	107.925	61.000
15	Waste to Wealth - Waste plastics (W2W)	27.990	8.625	10.900
16	Innovate, develop and up-scale modular, agile, intensified and continuous processes and plants (Indus MAGIC)	31.125	33.775	39.250
17	Catalysts for Speciality Chemicals (CSC)	23.795	30.068	31.000
18	Encapsulated Microorganisms for Environmental Protection (EMEP)	26.960	29.714	19.660
19	A Multi-Scale Simulation and Modeling Approach to Designing Smart Functional Materials for use in Energy, Electrochemistry and Bio-mimetics (MSM)	24.146	16.034	32.455
20	Natural Products as Affordable Healthcare Agents (NaPAHA)	223.170	89.990	94.500
21	Environmental Research Initiative for Paper and Process Industry (ERIPP)	50.000	62.816	45.550
22	Sustainable Technologies for the Utilization of Rare Earths (SURE)	332.733	461.726	254.156
23	Development of functional foods and their formulations for potential health benefits of common man (FUNHEALTH)	237.770	124.434	151.236
24	Molecules to Materials to Devices (M2D)	224.153	245.496	205.541
25	Speciality Materials based on Engineered Clays (SPECS)	58.375	67.533	53.000
26	Novel Energy Effective Metallic Materials for Automotive and General Engineering Application (LWM)	43.125	24.644	35.500
27	Clean Water: Sustainable Options (Clean Water)	0.000	6.451	18.910
28	CSIR Knowledge Gateway and Open Source Private Cloud Infrastructure (KNOWGATE)	5.645	2.328	0.000

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			Rs. Lakh
Title of the Project		2014-15	2015-16
Vulnerability assessment and development of adaption strategies for climate change impact with special reference to coasts and island ecosystems of India (VACCIN)	0.000	0.000	26.500
Total : CSIR-NIIST		1555.265	1412.699
Total Kerala	1698.737	27535.635	1412.699
State / U.T.: Madya Pradesh			
Laboratory: CSIR-Advanced Materials & Process Research Institute	e (CSIR-AMPR	RI), Bhopal	
1 Molecules to Materials to Devices (M2D)	32.553	10.128	9.078
2 Novel Energy Effective Metallic Materials for Automotive and General Engineering Application (LWM)	209.460	192.504	156.070
3 Development of Novel CSIR Technologies for Manufacturing Tailored and Patient-Specific Bioceramic Implants and Biomedical Devices at Affordable Cost (BIOCERAM)	11.105	5.848	8.466
4 Advanced ceramics materials and components for energy and structural application (CERMESA)	5.604	5.981	1.636
5 Design and Development of Thermo Responsive & Magnetic Shape Memory Materials and Devices for Engineering Applications (TR&MSMM)	171.847	91.931	207.002
6 Clean Water: Sustainable Options (Clean Water)	0.000	4.914	3.646
7 CSIR Knowledge Gateway and Open Source Private Cloud Infrastructure (KNOWGATE)	7.895	2.286	0.000
Total : CSIR-AMPRI	438.465	313.592	385.897
Total Madya Pradesh	438.465	27849.227	385.897
State / U.T.: Maharashtra Laboratory: CSIR-National Chemical Laboratory (CSIR-NCL), Pune			
 New Approaches Towards Understanding of Disease Dynamics and to Accelerate Drug Discovery (UNDO) 	36.450	19.440	29.400
2 Emerging and re-emerging challenges in infectious diseases: Systems based drug design for infectious diseases (SPIenDID)	7.180	4.724	6.300
3 Bioprospection of plant resources and other natural products (BioprosPR)	6.240	7.080	7.423
4 Genomics of Medicinal Plants and Agronomically Important Traits (PlaGen)	13.960	10.390	14.500
5 Plant Diversity: Studying adaptation biology and understanding/exploiting medicinally important plants for useful bioactives (SIMPLE)	143.760	38.360	51.280
6 Integrated NextGen approaches in health disease and environmental toxicity (INDEPTH)	29.130	19.960	27.960

	Title of the Project	2013-14	2014-15	2015-16
7	Nanomaterials: Applications and Impact on Safety, Health and Environment (NanoSHE)	52.790	29.130	18.540
8	Host Interactome analysis: Understanding the Role of Host molecules in Parasitic Infection (HOPE)	5.420	6.148	10.820
9	Neurodegenerative diseases: Causes and Corrections (miND)	36.094	20.625	32.600
10	Plant-Microbe and Soil Interactions (PMSI)	44.606	48.075	72.000
11	Man as a Superorganism: Understanding the Human Microbiome (HUM)	83.955	39.610	58.380
12	Centre for BIOtherapeutic Molecule DISCOVERY (BIODISCOVERY)	57.090	74.200	45.900
13	Genomics and Informatics Solutions for Integrating Biology (GENESIS)	17.500	27.160	23.968
14	Genome Dynamics in cellular organization, differentiation and enantiostasis (GenCODE)	45.750	55.500	64.994
15	CSIR-NCL-IGIB Joint Research Initiative: Interfacing Chemistry and Biology (CSIR-NCL-IGIB-JRI)	161.400	137.655	171.021
16	Towards Understanding skin Cell Homeostasis (TOUCH)	30.259	43.169	46.949
17	Clean Coal Technology (TapCoal)	114.642	136.827	86.200
18	Zero Emission Research Initiative for Solid Wastes from Leather (ZERIS)	15.605	11.890	16.036
19	Membrane & Adsorbent Technology Platform for Effective Separation of Gases and Liquids (MATES)	8.395	7.665	6.320
20	Biocatalysts for Industrial Applications & Greener Organic Synthesis (BIAGOS)	82.732	68.941	69.500
21	Inherently Safer Practices for Industrial Risk Reduction (INSPIRE)	12.100	4.754	6.227
22	Organic reactions in generating innovative and natural scaffolds (ORIGIN)	234.707	320.449	501.763
23	Non-Infringing chemistry and engineering for pharmaceuticals (NICE-P)	16.960	18.135	30.448
24	Metabolic profiling of human body fluids by MS and NMR (CMET)	28.330	15.877	17.230
25	Screening molecules in lead exploration (SMiLE)	24.760	29.140	23.116
26	Development of Sustainable Processes for Edible Oils with Health Benefits from Traditional and New Resources (PEOPLE HOPE)	54.200	13.633	16.707
27	Development of Sustainable Waste Management Technologies for Chemical and Allied Industries (SETCA)	55.190	43.722	30.660
28	Energy Efficient Technologies (E2++)	27.620	22.122	23.630
29	Catalysts for Sustainable Energy (ECat)	102.872	29.072	37.810
30	Research Initiative for Low Emissions (RILE)	7.100	2.088	3.000
31	Hydrogen Energy: Overcoming materials challenges in PEMFC towards generation, separation, storage and conversion of hydrogen (HYDEN)	211.379	149.640	219.982
32	Innovate, develop and up-scale modular, agile, intensified and continuous processes and plants (Indus MAGIC)	640.700	746.564	809.425
33	Catalysts for Speciality Chemicals (CSC)	109.850	114.236	126.742

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	Title of the Project	2013-14	2014-15	2015-16
34	Encapsulated Microorganisms for Environmental Protection (EMEP)	58.858	45.680	46.460
35	Creating intellectual property and capabilities for the development of improved security features and substrates for the Indian currency note (FUTURE)	63.648	87.210	66.540
36	A Multi-Scale Simulation and Modeling Approach to Designing Smart Functional Materials for use in Energy, Electrochemistry and Bio-mimetics (MSM)	407.150	203.567	167.283
37	Natural Products as Affordable Healthcare Agents (NaPAHA)	187.665	128.693	142.856
38	Development of functional foods and their formulations for potential health benefits of common man (FUNHEALTH)	165.220	61.270	73.922
39	Molecules to Materials to Devices (M2D)	194.250	224.305	218.600
40	Affordable Cancer Therapeutics (ACT)	17.911	25.244	24.876
41	Advance Drug Delivery System (ADD)	77.229	48.378	66.274
42	Centre for Surface and Interface Science Research (CSISR)	112.300	14.574	24.362
43	Nuclear Magnetic Resonance Centre for Advanced Research (NMRCAR)	106.092	64.925	88.808
44	National Repository of Molecules (NORMS)	244.619	209.929	312.884
45	Up gradation of Facilities/National Repository of Molecules and National Collection of Industrial Micro Organisms Resource Centre (NCIMRC)	74.675	19.870	29.944
46	Clean Water: Sustainable Options (Clean Water)	0.000	34.350	40.844
47	CSIR Knowledge Gateway and Open Source Private Cloud Infrastructure (KNOWGATE)	0.000	0.000	9.972
	Total : CSIR-NCL	4228.342	3483.976	4020.458
L	aboratory: CSIR-National Environmental Engineering Research Ins	titute (CSIR-N	NEERI), Nag _l	our
1	Integrated NextGen approaches in health disease and environmental	25.073	34.130	29.180
	toxicity (INDEPTH)			
2	Clean Coal Technology (TapCoal)	4.720	3.061	3.880
3	Waste to Wealth - Waste plastics (W2W)	4.452	3.559	3.243
4	Engineering of Disaster Mitigation and Health Monitoring for Safe and Smart Built Environment (EDMISSIBLE)	17.270	25.540	10.089
5	Centre of Excellence: Waste Utilization and Management (WUM)	481.178	456.774	314.911
6	National Clean Air Mission (NCAM)	496.288	184.073	150.851
7	Clean Water: Sustainable Options (Clean Water)	72.514	183.859	198.970
8	CSIR Knowledge Gateway and Open Source Private Cloud Infrastructure (KNOWGATE)	7.139	1.668	0.000
9	Vulnerability assessment and development of adaption strategies for climate change impact with special reference to coasts and island ecosystems of India (VACCIN)	0.000	0.000	42.650
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	Title of the Project	2013-14	2014-15	2015-16
10	Very High Power Microwave Tubes : Design and Development Capabilities (MTDDC)	21.161	41.540	29.120
11	Measurement for Innovation in Science & Technology (MIST)	24.749	16.550	64.301
12	Probing the Changing Atmosphere and its Impacts in Indo-Gangetic Plains (IGP) and Himalayan Regions (AIM-IGPHim)	16.335	9.730	23.168
	Total : CSIR-NEERI	1170.878	960.484	870.363
T	otal Maharashtra 	5399.220	32293.687	4890.821
Sta	ate / U.T. : Odisha			
L	aboratory: CSIR-Institute of Minerals & Materials Technology (CSIF	R-IMMT), Bhu	baneswar	
1	Multifunctional electrodes and Electrolytes for Future Technologies (MUTLIFUN)	37.693	24.062	63.834
2	Potassic (K) fertilizer Technology to Empower the Nation (K-TEN)	43.808	39.625	52.317
3	Development of Sustainable Waste Management Technologies for Chemical and Allied Industries (SETCA)	13.661	8.706	7.757
4	Biomass to Energy (BioEn)	16.944	9.694	12.450
5	Environmental Research Initiative for Paper and Process Industry (ERIPP)	24.228	6.112	7.143
6	Sustainable Technologies for the Utilization of Rare Earths (SURE)	60.338	29.463	21.907
7	Speciality Materials based on Engineered Clays (SPECS)	26.397	12.314	15.298
8	Novel Energy Effective Metallic Materials for Automotive and General Engineering Application (LWM)	59.619	47.753	12.725
9	Advanced ceramics materials and components for energy and structural application (CERMESA)	22.508	4.199	7.042
10	Development of Zero Waste Technology for Processing and Utilization of Thermal Coal (ZWT-CUP)	11.863	12.034	17.015
11	Robotics and Micro Machines (ROuM)	47.205	25.759	14.158
12	Minerals to Metals for Sustainable Planet (MINMET)	322.060	162.383	315.684
13	Processing of natural gemstones for aesthetic improvement and value addition (PNG)	752.990	117.294	128.720
14	Clean Water: Sustainable Options (Clean Water)	0.000	5.145	7.326
15	Centre for Special Materials (CSM)	289.381	184.882	120.556
16	CSIR Knowledge Gateway and Open Source Private Cloud Infrastructure (KNOWGATE)	0.000	0.000	6.966
17	Very High Power Microwave Tubes : Design and Development Capabilities (MTDDC)	61.677	35.028	14.350
18	Probing the Changing Atmosphere and its Impacts in Indo-Gangetic Plains (IGP) and Himalayan Regions (AIM-IGPHim)	12.148	9.199	11.690

				Rs. Lakh
	Title of the Project		2014-15	2015-16
	Total : CSIR-IMMT		733.652	836.940
Т	otal Odisha	1802.520	33027.339	836.940
St	ate / U.T. : Rajasthan			
L	aboratory: CSIR-Central Electronics Engineering Research Institut	e (CSIR-CEE	RI), Pilani	
1	Effective Application of Community Health Efforts through New Age, IT	0.000	9.450	14.050
	Based Modes (EACH-IT)			
2	Clean Coal Technology (TapCoal)	16.386	16.990	7.370
3	Creating intellectual property and capabilities for the development of improved security features and substrates for the Indian currency note (FUTURE)	53.973	18.435	55.282
4	Engineering of Disaster Mitigation and Health Monitoring for Safe and Smart Built Environment (EDMISSIBLE)	101.535	53.850	54.450
5	Development of Novel CSIR Technologies for Manufacturing Tailored and Patient-Specific Bioceramic Implants and Biomedical Devices at Affordable Cost (BIOCERAM)	8.819	5.448	7.163
6	Technology Solutions for Micro Air Vehicle Development (MAT)	20.867	37.665	39.927
7	Innovative Technologies for Health Assessment and Damage Mitigation of Structures (I-HEAL)	44.000	24.475	21.091
8	Robotics and Micro Machines (ROuM)	12.040	15.428	19.510
9	Autonomous Underwater Robotics (UnWaR)	82.627	48.160	43.500
10	Clean Water: Sustainable Options (Clean Water)	0.000	7.830	6.130
11	CSIR Knowledge Gateway and Open Source Private Cloud Infrastructure (KNOWGATE)	0.000	6.906	2.851
12	Very High Power Microwave Tubes : Design and Development Capabilities (MTDDC)	1193.424	822.156	770.166
13	Research Initiative on Nano Devices and Nano-Sensors (R-Nano)	412.499	201.915	496.853
14	Advanced Instrumentation Solutions for Health Care and Agro-based Applications (ASHA)	22.523	19.728	7.251
15	Development of Advanced Materials for Next-Generation Energy-Efficient Devices (D-NEED)	103.200	40.500	115.833
16	Advanced Quantum Research and Innovation with Ultra Small Systems (AQuaRIUS)	0.000	160.000	0.000
17	Advanced Microsensors and Microsystems : Design, Development and Applications (MicroSensys)	514.900	275.750	353.478
18	Advanced Facility for Nano Electronics (AFNE)	29.625	32.000	25.369

Total: CSIR-CEERI

2040.275

2616.419 1796.686

				Rs. Lakh
	Title of the Project	2013-14	-	2015-16
To	otal Rajasthan	2616.419	34824.025	2040.275
St	ate / U.T.: Tamil Nadu			
L	aboratory: CSIR-Central Electrochemical Research Institute (CSIR-	CECRI), Kara	aikudi	
1	Multifunctional electrodes and Electrolytes for Future Technologies (MUTLIFUN)	1468.597	910.535	2115.093
2	Zero Emission Research Initiative for Solid Wastes from Leather (ZERIS)	13.885	14.453	19.300
3	Potassic (K) fertilizer Technology to Empower the Nation (K-TEN)	26.550	39.600	30.000
4	Development of Sustainable Waste Management Technologies for Chemical and Allied Industries (SETCA)	48.430	51.982	43.100
5	Intelligent Coatings (IntelCoat)	674.417	231.206	231.400
6	Advanced Carbon Materials (AdCarbMate)	29.199	38.014	27.820
7	Hydrogen Energy: Overcoming materials challenges in PEMFC towards generation, separation, storage and conversion of hydrogen (HYDEN)	110.863	148.225	172.880
8	A Multi-Scale Simulation and Modeling Approach to Designing Smart Functional Materials for use in Energy, Electrochemistry and Bio-mimetics (MSM)	19.875	23.031	18.750
9	Sustainable Technologies for the Utilization of Rare Earths (SURE)	47.189	38.188	45.808
10	Molecules to Materials to Devices (M2D)	313.065	242.102	83.873
11	Innovative Technologies for Health Assessment and Damage Mitigation of Structures (I-HEAL)	23.700	21.675	21.200
12	Clean Water: Sustainable Options (Clean Water)	0.000	4.750	6.250
13	CSIR Knowledge Gateway and Open Source Private Cloud Infrastructure (KNOWGATE)	5.125	2.328	0.000
14	Very High Power Microwave Tubes : Design and Development Capabilities (MTDDC)	27.410	6.750	8.490
15	Development of Advanced Materials for Next-Generation Energy-Efficient Devices (D-NEED)	7.500	9.229	12.500
	Total : CSIR-CECRI	2815.805	1782.068	2836.463
L	aboratory: CSIR-Central Leather Research Institute (CSIR-CLRI), C	hennai		
1	Integrated NextGen approaches in health disease and environmental toxicity (INDEPTH)	29.312	13.177	18.590
2	Nanomaterials: Applications and Impact on Safety, Health and Environment (NanoSHE)	18.709	16.010	21.264
3	Centre for BIOtherapeutic Molecule DISCOVERY (BIODISCOVERY)	3.550	2.080	5.813
4	Genomics and Informatics Solutions for Integrating Biology (GENESIS)	39.925	3.130	3.219

				Rs. Lakh
	Title of the Project	2013-14	2014-15	2015-16
5	Zero Emission Research Initiative for Solid Wastes from Leather (ZERIS)	200.378	249.208	353.624
6	Membrane & Adsorbent Technology Platform for Effective Separation of Gases and Liquids (MATES)	10.303	9.749	9.016
7	Development of Sustainable Waste Management Technologies for Chemical and Allied Industries (SETCA)	27.264	19.312	19.236
8	Biomass to Energy (BioEn)	18.511	14.523	12.901
9	Innovate, develop and up-scale modular, agile, intensified and continuous processes and plants (Indus MAGIC)	17.210	14.845	23.364
10	Encapsulated Microorganisms for Environmental Protection (EMEP)	26.419	23.548	14.809
11	A Multi-Scale Simulation and Modeling Approach to Designing Smart Functional Materials for use in Energy, Electrochemistry and Bio-mimetics (MSM)	4.234	21.070	3.167
12	Environmental Research Initiative for Paper and Process Industry (ERIPP)	18.250	13.845	15.042
13	Sustainable Technologies for the Utilization of Rare Earths (SURE)	5.502	11.564	4.890
14	Molecules to Materials to Devices (M2D)	23.381	15.438	12.013
15	Science and Technology Revolution in Leather with a Green Touch (STRAIT)	1270.978	1024.402	1188.840
16	Research Initiative for Waterless Tanning (RIWT)	44.504	41.340	159.672
17	Advance Drug Delivery System (ADD)	25.384	15.333	21.504
18	Design Innovation for Smart Material Transformation Yeaning Leather Life Style Products (D'STYLE)	114.240	41.026	94.600
19	Development and Application of Technologies for Sustainable Transportation (SUSTRANS)	19.775	14.617	14.811
20	CSIR Knowledge Gateway and Open Source Private Cloud Infrastructure (KNOWGATE)	0.000	0.000	9.176
	Total : CSIR-CLRI	1917.827	1564.217	2005.552
L	aboratory: CSIR-Madras Complex, Chennai			
1	CSIR Knowledge Gateway and Open Source Private Cloud Infrastructure (KNOWGATE)	0.000	6.906	2.826
	Total : CSIR-MDCX	0.000	6.906	2.826
L	aboratory: CSIR-Structural Engineering Research Centre (CSIR-SE	RC), Chennai		
1	Potassic (K) fertilizer Technology to Empower the Nation (K-TEN)	4.935	6.070	6.260
2	Innovative Technologies for Health Assessment and Damage Mitigation of Structures (I-HEAL)	394.035	401.770	449.507
3	Engineering Sustainable Materials and Structures Action Plan I: Sustainability Through Eco-Balancing (SUSMAS)	588.579	690.894	659.240
4	Engineering Sustainable Materials and Structures Action Plan II: Sustainability Through Nano-Technology and Bio-Mimetics (eNano-Tics)	590.866	608.257	554.964

				Rs. Lakh
	Title of the Project		2014-15	2015-16
	CSIR Knowledge Gateway and Open Source Private Cloud Infrastructure (KNOWGATE)	0.000	7.321	2.850
	Total : CSIR-SERC	1578.414	1714.312	
Т	otal Tamil Nadu	6312.047		6517.662
St	ate / U.T. : Telengana			
L	aboratory: CSIR-Centre for Cellular & Molecular Biology (CSIR-CC	MB), Hyderab	ad	
1	Factors Governing competent gamete production and reproductive dysfunction (PROGRAM)	53.750	53.580	80.000
2	Towards holistic understanding of Complex Diseases: Unraveling the Threads of Complex Diseases (THUNDER)	60.300	62.750	78.240
3	New Approaches Towards Understanding of Disease Dynamics and to Accelerate Drug Discovery (UNDO)	190.300	187.622	388.592
4	Emerging and re-emerging challenges in infectious diseases: Systems based drug design for infectious diseases (SPIenDID)	46.500	29.050	40.900
5	Genomics of Medicinal Plants and Agronomically Important Traits (PlaGen)	4.440	4.895	5.170
6	Medicinal Chemistry for stem cell biology and regenerative medicine (MEDCHEM)	233.000	87.150	120.500
7	Integrated NextGen approaches in health disease and environmental toxicity (INDEPTH)	47.345	45.400	59.350
8	Nanomaterials: Applications and Impact on Safety, Health and Environment (NanoSHE)	79.815	77.130	86.990
9	Understanding supra molecular ensembles and machines (UNSEEN)	51.500	43.300	49.068
10	Host Interactome analysis: Understanding the Role of Host molecules in Parasitic Infection (HOPE)	30.140	29.798	50.862
11	Neurodegenerative diseases: Causes and Corrections (miND)	275.543	133.920	192.932
12	Plant-Microbe and Soil Interactions (PMSI)	157.621	115.550	143.050
13	Epigenetics in Health and Disease (EpiHeD)	510.738	425.840	854.131
14	Centre for BIOtherapeutic Molecule DISCOVERY (BIODISCOVERY)	42.250	26.300	23.404
15	Genomics and Informatics Solutions for Integrating Biology (GENESIS)	193.450	186.240	213.147
16	Centre for Cardiovascular and Metabolic Disease Research (CARDIOMED)	282.000	139.175	193.744
17	Genome Dynamics in cellular organization, differentiation and enantiostasis (GenCODE)	26.000	29.625	47.915
18	Conservation of endangered animals of India: Molecular Genetics and Reproduction Approaches (ConservE)	174.400	155.696	176.000
19	Biology of Ageing and Human Health (BioAGE)	1069.500	595.890	709.116
20	Plant Breeding, Genomics and Biotechnology (PLOMICS)	200.510	204.040	245.113

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	Title of the Project	2013-14	2014-15	2015-16
21	Towards Understanding skin Cell Homeostasis (TOUCH)	13.904	16.106	22.808
22	Natural Products as Affordable Healthcare Agents (NaPAHA)	19.400	8.100	11.500
23	Development of Novel CSIR Technologies for Manufacturing Tailored and Patient-Specific Bioceramic Implants and Biomedical Devices at Affordable Cost (BIOCERAM)	10.292	11.132	13.739
24	CSIR Knowledge Gateway and Open Source Private Cloud Infrastructure (KNOWGATE)	0.000	0.000	9.030
25	Indian Aquatic Ecosystems: Impact of Deoxygenation, Eutrophication and Acidification (INDIAS IDEA)	13.240	15.625	38.645
	Total : CSIR-CCMB	3785.938	2683.914	3853.946
L	aboratory: CSIR-Indian Institute of Chemical Technology (CSIR-IIC	T), Hyderabad	t	
1	Towards holistic understanding of Complex Diseases: Unraveling the	33.550	12.080	15.600
	Threads of Complex Diseases (THUNDER)			
2	New Approaches Towards Understanding of Disease Dynamics and to Accelerate Drug Discovery (UNDO)	15.900	19.540	102.600
3	Nanomaterials: Applications and Impact on Safety, Health and Environment (NanoSHE)	89.900	8.680	11.040
4	Neurodegenerative diseases: Causes and Corrections (miND)	57.600	25.615	45.900
5	Therapeutics of Chronic Obstructive Pulmonary Disease (COPD) and Related Respiratory Disorders (TREAT)	43.500	32.950	47.500
6	Epigenetics in Health and Disease (EpiHeD)	46.473	26.529	38.945
7	Genomics and Informatics Solutions for Integrating Biology (GENESIS)	72.160	25.492	32.314
8	Genome Dynamics in cellular organization, differentiation and enantiostasis (GenCODE)	55.500	49.875	85.500
9	Multifunctional electrodes and Electrolytes for Future Technologies (MUTLIFUN)	35.480	11.713	0.000
10	Membrane & Adsorbent Technology Platform for Effective Separation of Gases and Liquids (MATES)	68.590	50.160	35.030
11	Biocatalysts for Industrial Applications & Greener Organic Synthesis (BIAGOS)	62.247	70.200	56.800
12	Inherently Safer Practices for Industrial Risk Reduction (INSPIRE)	85.308	84.450	55.000
13	Organic reactions in generating innovative and natural scaffolds (ORIGIN)	691.620	854.193	950.950
14	Non-Infringing chemistry and engineering for pharmaceuticals (NICE-P)	46.705	41.739	45.240
15	Metabolic profiling of human body fluids by MS and NMR (CMET)	77.170	136.647	118.530
16	Screening molecules in lead exploration (SMiLE)	402.650	257.263	822.190
17	Development of Sustainable Processes for Edible Oils with Health Benefits from Traditional and New Resources (PEOPLE HOPE)	278.708	141.956	185.342
18	Development of Sustainable Waste Management Technologies for Chemical and Allied Industries (SETCA)	90.160	103.497	123.950

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	Title of the Project	2013-14	2014-15	2015-16
19	Intelligent Coatings (IntelCoat)	529.490	380.889	257.566
20	Biomass to Energy (BioEn)	152.551	119.362	100.206
21	New generation lubricants and additives (GenLube)	20.218	6.876	6.475
22	Innovate, develop and up-scale modular, agile, intensified and continuous processes and plants (Indus MAGIC)	204.750	180.400	193.000
23	Catalysts for Speciality Chemicals (CSC)	64.110	40.980	31.600
24	Natural Products as Affordable Healthcare Agents (NaPAHA)	28.050	30.900	30.100
25	Sustainable Technologies for the Utilization of Rare Earths (SURE)	48.765	42.040	25.704
26	Development of functional foods and their formulations for potential health benefits of common man (FUNHEALTH)	10.900	12.075	12.500
27	Molecules to Materials to Devices (M2D)	85.499	27.795	101.980
28	Speciality Materials based on Engineered Clays (SPECS)	16.850	5.857	9.060
29	Development of Innovative Technologies for Strategic Flurochemicals (DITSF)	146.750	197.900	104.000
30	Development of Novel Vaccine Adjuvants (DENOVA)	134.397	114.293	236.440
31	Affordable Cancer Therapeutics (ACT)	198.830	203.570	180.836
32	Advance Drug Delivery System (ADD)	235.102	63.252	281.251
33	Augmentation of Analytical Research Facilities (AARF)	36.535	162.312	59.260
34	Centre of Excellence: Waste Utilization and Management (WUM)	14.035	7.535	7.455
35	CSIR Knowledge Gateway and Open Source Private Cloud Infrastructure (KNOWGATE)	0.000	6.906	2.850
	Total : CSIR-IICT	4180.054	3555.521	4412.715
L	aboratory: CSIR-National Geophysical Research Institute (CSIR-N	GRI), Hyderab	ad	
1	Potassic (K) fertilizer Technology to Empower the Nation (K-TEN)	6.195	14.025	17.050
2	Development of underground coal gasification technology in India (CoalGasUrja)	8.525	19.748	11.430
3	Development of suitable design methodology for extraction of coal at greater depths (>300 m) for Indian geomining conditions (DeepCoal)	9.300	27.064	23.704
4	Clean Water: Sustainable Options (Clean Water)	0.000	5.010	6.830
5	CSIR Knowledge Gateway and Open Source Private Cloud Infrastructure (KNOWGATE)	0.000	6.906	2.850
6	Advanced Research in Engineering & Earth Sciences: Data intensive modelling and crowd sourcing approach (ARiEES)	15.650	6.100	8.300
7	Geodynamic and Earthquake generating processes in NE India and Andaman Subduction Zone (GENIAS)	208.150	186.153	203.250

	Title of the Project	2013-14		2015-16
8	Geological processes in the Indian Ocean - Understanding the input fluxes, sinks and Paleoceanography (GEOSINKS)	3.000	4.280	13.100
9	Geo-scientific investigations for deciphering the Earth's internal processes and exploration of energy resources (GEOSCAPE)	124.405	153.280	181.560
10	Indian Aquatic Ecosystems: Impact of Deoxygenation, Eutrophication and Acidification (INDIAS IDEA)	15.840	20.020	37.700
11	Hazard due to Earthquakes and Tsunami in the Indian region (HEART)	176.982	191.652	218.822
12	India Deep Earth Exploration Programme (INDEX)	440.195	312.663	362.750
13	Shallow subsurface imaging of India for resource exploration (SHORE)	889.601	520.050	597.215
	Total : CSIR-NGRI	1897.843	1466.951	1684.561
T	otal Telengana	9863.835	47597.914	9951.222
	aboratory: CSIR-Central Drug Research Institute (CSIR-CDRI), Luci		220,020	200.042
L	aboratory: CSIR-Central Drug Research Institute (CSIR-CDRI), Lucl	know		
1	Factors Governing competent gamete production and reproductive	327.370	228.820	296.942
_	dysfunction (PROGRAM)	740.550	E4E 000	454.000
2	Towards holistic understanding of Complex Diseases: Unraveling the Threads of Complex Diseases (THUNDER)	710.550	515.680	454.298
3	New Approaches Towards Understanding of Disease Dynamics and to Accelerate Drug Discovery (UNDO)	417.870	412.240	342.000
4	Emerging and re-emerging challenges in infectious diseases: Systems based drug design for infectious diseases (SPIenDID)	600.316	253.320	546.299
5	Bioprospection of plant resources and other natural products (BioprosPR)	117.750	119.353	148.500
6	Medicinal Chemistry for stem cell biology and regenerative medicine (MEDCHEM)	57.650	25.679	36.000
7	Integrated NextGen approaches in health disease and environmental	88.623	62.918	75.910
	toxicity (INDEPTH)	00.023		
8	toxicity (INDEPTH) Nanomaterials: Applications and Impact on Safety, Health and Environment (NanoSHE)	58.220	20.520	26.020
8	Nanomaterials: Applications and Impact on Safety, Health and Environment			
9	Nanomaterials: Applications and Impact on Safety, Health and Environment (NanoSHE)	58.220	20.520	26.020
9	Nanomaterials: Applications and Impact on Safety, Health and Environment (NanoSHE) Understanding supra molecular ensembles and machines (UNSEEN) Host Interactome analysis: Understanding the Role of Host molecules in	58.220 140.650	20.520 82.904	26.020 137.550
9 10 11	Nanomaterials: Applications and Impact on Safety, Health and Environment (NanoSHE) Understanding supra molecular ensembles and machines (UNSEEN) Host Interactome analysis: Understanding the Role of Host molecules in Parasitic Infection (HOPE)	58.220 140.650 329.890	20.520 82.904 160.050	26.020 137.550 340.700
9 10 11	Nanomaterials: Applications and Impact on Safety, Health and Environment (NanoSHE) Understanding supra molecular ensembles and machines (UNSEEN) Host Interactome analysis: Understanding the Role of Host molecules in Parasitic Infection (HOPE) Neurodegenerative diseases: Causes and Corrections (miND)	58.220 140.650 329.890 83.850	20.520 82.904 160.050 26.284	26.020 137.550 340.700 28.100
9 10 11 12	Nanomaterials: Applications and Impact on Safety, Health and Environment (NanoSHE) Understanding supra molecular ensembles and machines (UNSEEN) Host Interactome analysis: Understanding the Role of Host molecules in Parasitic Infection (HOPE) Neurodegenerative diseases: Causes and Corrections (miND) Epigenetics in Health and Disease (EpiHeD)	58.220 140.650 329.890 83.850 103.376	20.520 82.904 160.050 26.284 46.154	26.020 137.550 340.700 28.100 56.547
9 10 11 12 13	Nanomaterials: Applications and Impact on Safety, Health and Environment (NanoSHE) Understanding supra molecular ensembles and machines (UNSEEN) Host Interactome analysis: Understanding the Role of Host molecules in Parasitic Infection (HOPE) Neurodegenerative diseases: Causes and Corrections (miND) Epigenetics in Health and Disease (EpiHeD) Man as a Superorganism: Understanding the Human Microbiome (HUM)	58.220 140.650 329.890 83.850 103.376 38.715	20.520 82.904 160.050 26.284 46.154 15.494	26.020 137.550 340.700 28.100 56.547 22.049

Title of the Project 2013-14 2014-15 16 Genome Dynamics in cellular organization, differentiation and enantiostasis (GenCODE) 17 Anabolic Skeletal Targets in Health and Illness (ASTHI) 18 Towards Understanding skin Cell Homeostasis (TOUCH) 19 Advance Drug Delivery System (ADD) 20 Development of Novel CSIR Technologies for Manufacturing Tailored and Patient-Specific Bioceramic Implants and Biomedical Devices at Affordable	2015-16 36.750 292.497 14.253 25.309
16 Genome Dynamics in cellular organization, differentiation and enantiostasis (GenCODE) 17 Anabolic Skeletal Targets in Health and Illness (ASTHI) 18 Towards Understanding skin Cell Homeostasis (TOUCH) 19 Advance Drug Delivery System (ADD) 20 Development of Novel CSIR Technologies for Manufacturing Tailored and Patient-Specific Bioceramic Implants and Biomedical Devices at Affordable	292.497 14.253
18 Towards Understanding skin Cell Homeostasis (TOUCH) 19 Advance Drug Delivery System (ADD) 20 Development of Novel CSIR Technologies for Manufacturing Tailored and Patient-Specific Bioceramic Implants and Biomedical Devices at Affordable 10.000 11.544	14.253
19 Advance Drug Delivery System (ADD) 20 Development of Novel CSIR Technologies for Manufacturing Tailored and Patient-Specific Bioceramic Implants and Biomedical Devices at Affordable 38.699 11.544	
Development of Novel CSIR Technologies for Manufacturing Tailored and Patient-Specific Bioceramic Implants and Biomedical Devices at Affordable	
Patient-Specific Bioceramic Implants and Biomedical Devices at Affordable	25.309
Cost (BIOCERAM)	
1 CSIR Knowledge Gateway and Open Source Private Cloud Infrastructure 5.645 2.322 (KNOWGATE)	0.000
2 Measurement for Innovation in Science & Technology (MIST) 24.000 16.400	15.001
Total : CSIR-CDRI 3830.881 2507.609	2984.325
Laboratory: CSIR-Central Institute of Medicinal and Aromatic Plants (CSIR-CIMAP), Lucknow	,
1 New initiatives to boost agriculture productivity through maximizing pre- 46.794 35.020	36.759
and post-harvest yields (AGROPATHY)	
2 Bioprospection of plant resources and other natural products (BioprosPR) 30.534 31.959	38.846
3 Genomics of Medicinal Plants and Agronomically Important Traits (PlaGen) 42.522 28.380	43.121
Plant Diversity: Studying adaptation biology and understanding/exploiting 104.710 65.580 medicinally important plants for useful bioactives (SIMPLE)	57.760
5 Introduction, domestication, improvement and cultivation of economically 116.879 84.103 important plants (AGTEC)	125.625
6 Integrated NextGen approaches in health disease and environmental 30.335 22.910 toxicity (INDEPTH)	26.560
7 Plant-Microbe and Soil Interactions (PMSI) 72.907 64.900	42.642
8 Genomics and Informatics Solutions for Integrating Biology (GENESIS) 33.656 26.687	15.400
9 S&T interventions to combat malnutrition in women and children (HCP07) 10.125 12.540	14.634
0 Chemical Biology of Ocimum and other Aromatic Plants (ChemBio) 662.277 894.894	1021.686
1 CSIR Knowledge Gateway and Open Source Private Cloud Infrastructure 0.000 0.000 (KNOWGATE)	9.832
Total : CSIR-CIMAP 1150.739 1266.973	1432.866
Laboratory: CSIR Human Resource Development Centre-(CSIR-HRDC), Ghaziabad 1 Traditional Knowledge Digital Library 2020 (Enhanced TKDL-2020) 197.040 242.450	197.006
Total : CSIR-HRDC 197.040 242.450	197.006

				Rs. Lakh
	Title of the Project	2013-14	2014-15	2015-16
L	aboratory: CSIR-Indian Institute of Toxicology Research (CSIR-IITR			
1	New Approaches Towards Understanding of Disease Dynamics and to	105.900	69.040	99.200
	Accelerate Drug Discovery (UNDO)			
2	Bioprospection of plant resources and other natural products (BioprosPR)	6.700	11.226	14.400
3	Medicinal Chemistry for stem cell biology and regenerative medicine (MEDCHEM)	15.125	16.632	20.650
4	Integrated NextGen approaches in health disease and environmental toxicity (INDEPTH)	352.124	324.070	415.380
5	Nanomaterials: Applications and Impact on Safety, Health and Environment (NanoSHE)	328.320	343.412	461.321
6	Neurodegenerative diseases: Causes and Corrections (miND)	73.250	88.151	105.500
7	Epigenetics in Health and Disease (EpiHeD)	18.450	19.300	26.250
8	Centre for BIOtherapeutic Molecule DISCOVERY (BIODISCOVERY)	19.300	7.251	12.800
9	Genomics and Informatics Solutions for Integrating Biology (GENESIS)	13.370	25.321	19.970
10	Towards Understanding skin Cell Homeostasis (TOUCH)	46.163	45.375	54.125
11	Advance Drug Delivery System (ADD)	3.190	2.719	4.000
12	Clean Water: Sustainable Options (Clean Water)	0.000	5.650	6.150
13	CSIR Knowledge Gateway and Open Source Private Cloud Infrastructure (KNOWGATE)	0.000	0.000	10.120
14	Measurement for Innovation in Science & Technology (MIST)	59.350	15.450	23.700
	Total : CSIR-IITR	1041.242	973.597	1273.565
L	aboratory: CSIR-National Botanical Research Institute (CSIR-NBRI),	Lucknow		
1	Bioprospection of plant resources and other natural products (BioprosPR)	88.625	79.150	94.909
2	Genomics of Medicinal Plants and Agronomically Important Traits (PlaGen)	166.429	180.510	277.371
3	Plant Diversity: Studying adaptation biology and understanding/exploiting medicinally important plants for useful bioactives (SIMPLE)	284.545	250.255	244.697
4	Introduction, domestication, improvement and cultivation of economically important plants (AGTEC)	128.621	119.806	82.483
5	Integrated NextGen approaches in health disease and environmental toxicity (INDEPTH)	58.876	42.699	49.133
6	Plant-Microbe and Soil Interactions (PMSI)	88.010	74.249	100.499
7	Genomics and Informatics Solutions for Integrating Biology (GENESIS)	29.900	22.100	23.900
8	S&T interventions to combat malnutrition in women and children (HCP07)	9.713	27.121	39.064
9	Root Biology and its correlation to sustainable plant development and soil fertility (RootSF)	1350.900	993.851	1255.064

			Rs. Lakh
Title of the Project	2013-14	2014-15	2015-16
10 CSIR Knowledge Gateway and Open Source Private Cloud Infrastructure (KNOWGATE)	0.000	6.906	2.470
1 Probing the Changing Atmosphere and its Impacts in Indo-Gangetic Plains (IGP) and Himalayan Regions (AIM-IGPHim)	50.942	21.921	23.300
Total : CSIR-NBRI	2256.561	1818.568	2192.888
Total Uttar Pradesh	8476.463	54407.111	8080.651
State / U.T. : Uttarakhand			
Laboratory: CSIR-Central Building Research Institute (CSIR-CBRI)	, Roorkee		
1 Engineering of Disaster Mitigation and Health Monitoring for Safe and Smart Built Environment (EDMISSIBLE)	438.575	281.760	171.465
2 Development of a technology for optimal extraction of locked-up coal from underground mines using artificial pillars (DeCoalArt)	17.425	17.616	15.495
3 Robotics and Micro Machines (ROuM)	26.670	17.750	12.008
4 Innovative Materials and Technologies for Next Generation Green buildings (INMATE-NGGB)	255.500	421.183	188.758
5 Clean Water: Sustainable Options (Clean Water)	0.000	4.500	3.713
6 CSIR Knowledge Gateway and Open Source Private Cloud Infrastructure (KNOWGATE)	7.350	2.328	0.000
7 Advanced Research in Engineering & Earth Sciences: Data intensive modelling and crowd sourcing approach (ARIEES)	10.100	15.900	14.251
8 Advanced Instrumentation Solutions for Health Care and Agro-based Applications (ASHA)	20.740	10.688	4.450
Total : CSIR-CBRI	776.360	771.725	410.141
Laboratory: CSIR-Indian Institute of Petroleum (CSIR-IIP), Dehradu	ın		
1 Centre for BIOtherapeutic Molecule DISCOVERY (BIODISCOVERY)	18.132	18.300	11.756
2 Clean Coal Technology (TapCoal)	67.685	61.406	15.692
3 Biocatalysts for Industrial Applications & Greener Organic Synthesis (BIAGOS)	6.153	42.675	7.072
4 Development of Sustainable Processes for Edible Oils with Health Benefits from Traditional and New Resources (PEOPLE HOPE)	13.941	12.127	13.164
5 Energy Efficient Technologies (E2++)	174.497	130.850	107.949
6 Biomass to Energy (BioEn)	128.253	76.940	41.416
7 Catalysts for Sustainable Energy (ECat)	530.410	249.571	223.139
8 New generation lubricants and additives (GenLube)	280.256	160.869	78.118

	Title of the Project	2013-14	2014-15	2015-16
9	Research Initiative for Low Emissions (RILE)	219.052	144.081	135.901
10	Waste to Wealth - Waste plastics (W2W)	110.716	29.441	27.976
1	Advanced Carbon Materials (AdCarbMate)	27.479	31.608	26.717
2	Catalysts for Speciality Chemicals (CSC)	174.836	75.529	85.734
3	A Multi-Scale Simulation and Modeling Approach to Designing Smart Functional Materials for use in Energy, Electrochemistry and Bio-mimetics (MSM)	56.402	11.076	10.254
4	Natural Products as Affordable Healthcare Agents (NaPAHA)	8.907	17.890	8.239
5	Sustainable Technologies for the Utilization of Rare Earths (SURE)	44.547	58.771	16.466
6	Speciality Materials based on Engineered Clays (SPECS)	43.318	12.880	14.540
7	Centre of Excellence for HRD in Hydrocarbon (TrainAll)	0.000	0.000	492.500
8	Robotics and Micro Machines (ROuM)	8.259	59.112	9.720
9	CSIR Knowledge Gateway and Open Source Private Cloud Infrastructure (KNOWGATE)	0.000	6.622	2.758
	Total : CSIR-IIP	1912.843	1199.748	1329.111
 Tc		1912.843 2689.203		
St L	Total : CSIR-IIP otal Uttarakhand ate / U.T. : West Bengal aboratory: CSIR-Central Glass & Ceramic Research Institute (CSIR-	1912.843 2689.203 	1199.748 56378.584 kata	1329.111 1739.252
St L	Total : CSIR-IIP otal Uttarakhand ate / U.T. : West Bengal	1912.843 2689.203	1199.748 56378.584	1329.111
 St L	Total: CSIR-IIP otal Uttarakhand ate / U.T.: West Bengal aboratory: CSIR-Central Glass & Ceramic Research Institute (CSIR-Multifunctional electrodes and Electrolytes for Future Technologies	1912.843 2689.203 	1199.748 56378.584 kata	1329.111 1739.252 21.569
 St L 1	Total: CSIR-IIP otal Uttarakhand ate / U.T.: West Bengal aboratory: CSIR-Central Glass & Ceramic Research Institute (CSIR-Multifunctional electrodes and Electrolytes for Future Technologies (MUTLIFUN) Membrane & Adsorbent Technology Platform for Effective Separation of	1912.843 2689.203 -CGCRI), Kol 27.719	1199.748 56378.584 kata	1329.111 1739.252
 St 1 2	Total: CSIR-IIP otal Uttarakhand ate / U.T.: West Bengal aboratory: CSIR-Central Glass & Ceramic Research Institute (CSIR- Multifunctional electrodes and Electrolytes for Future Technologies (MUTLIFUN) Membrane & Adsorbent Technology Platform for Effective Separation of Gases and Liquids (MATES)	2689.203 -CGCRI), Kol 27.719 22.388	1199.748 56378.584 kata 9.544 11.510	1329.111 1739.252 21.569 10.018 14.150
 St L 1 2 3 4	Total: CSIR-IIP otal Uttarakhand ate / U.T.: West Bengal aboratory: CSIR-Central Glass & Ceramic Research Institute (CSIR-Multifunctional electrodes and Electrolytes for Future Technologies (MUTLIFUN) Membrane & Adsorbent Technology Platform for Effective Separation of Gases and Liquids (MATES) Intelligent Coatings (IntelCoat)	2689.203 -CGCRI), Kol 27.719 22.388 24.955	1199.748 56378.584 kata 9.544 11.510 10.542	1329.111 1739.252 21.569 10.018 14.150 9.608
 St L 1 2 3 4 5	Total: CSIR-IIP otal Uttarakhand ate / U.T.: West Bengal aboratory: CSIR-Central Glass & Ceramic Research Institute (CSIR-Multifunctional electrodes and Electrolytes for Future Technologies (MUTLIFUN) Membrane & Adsorbent Technology Platform for Effective Separation of Gases and Liquids (MATES) Intelligent Coatings (IntelCoat) Energy Efficient Technologies (E2++)	2689.203 -CGCRI), Kol 27.719 22.388 24.955 11.741	1199.748 56378.584 kata 9.544 11.510 10.542 16.427	1329.111 1739.252 21.569 10.018 14.150 9.608 7.230
St L 1	Total: CSIR-IIP cotal Uttarakhand ate / U.T.: West Bengal aboratory: CSIR-Central Glass & Ceramic Research Institute (CSIR-Multifunctional electrodes and Electrolytes for Future Technologies (MUTLIFUN) Membrane & Adsorbent Technology Platform for Effective Separation of Gases and Liquids (MATES) Intelligent Coatings (IntelCoat) Energy Efficient Technologies (E2++) Speciality Materials based on Engineered Clays (SPECS) Engineering of Disaster Mitigation and Health Monitoring for Safe and Smart	2689.203 -CGCRI), Kol 27.719 22.388 24.955 11.741 15.775	1199.748 56378.584 kata 9.544 11.510 10.542 16.427 6.794	1329.111 1739.252 21.569 10.018 14.150 9.608 7.230 31.447
St 1 2 3 4 5 6 7	Total: CSIR-IIP cotal Uttarakhand ate / U.T.: West Bengal aboratory: CSIR-Central Glass & Ceramic Research Institute (CSIR-Multifunctional electrodes and Electrolytes for Future Technologies (MUTLIFUN) Membrane & Adsorbent Technology Platform for Effective Separation of Gases and Liquids (MATES) Intelligent Coatings (IntelCoat) Energy Efficient Technologies (E2++) Speciality Materials based on Engineered Clays (SPECS) Engineering of Disaster Mitigation and Health Monitoring for Safe and Smart Built Environment (EDMISSIBLE) Development of Novel CSIR Technologies for Manufacturing Tailored and Patient-Specific Bioceramic Implants and Biomedical Devices at Affordable	1912.843 2689.203 -CGCRI), Kol 27.719 22.388 24.955 11.741 15.775 49.495	1199.748 56378.584 kata 9.544 11.510 10.542 16.427 6.794 39.368	1329.111 1739.252 21.569 10.018 14.150 9.608 7.230 31.447 156.442
St L 1 2 3 4 5 6 7	Total: CSIR-IIP International Control of Cases and Electrolytes for Future Technologies (MUTLIFUN) Membrane & Adsorbent Technology Platform for Effective Separation of Gases and Liquids (MATES) Intelligent Coatings (IntelCoat) Energy Efficient Technologies (E2++) Speciality Materials based on Engineered Clays (SPECS) Engineering of Disaster Mitigation and Health Monitoring for Safe and Smart Built Environment (EDMISSIBLE) Development of Novel CSIR Technologies for Manufacturing Tailored and Patient-Specific Bioceramic Implants and Biomedical Devices at Affordable Cost (BIOCERAM) Advanced ceramics materials and components for energy and structural	1912.843 2689.203 -CGCRI), Kol 27.719 22.388 24.955 11.741 15.775 49.495 561.173	1199.748 56378.584 kata 9.544 11.510 10.542 16.427 6.794 39.368 235.233	1329.111 1739.252 21.569 10.018

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	Title of the Project	2013-14	2014-15	2015-16
10	Robotics and Micro Machines (ROuM)	67.449	14.494	17.621
11	Leadership in Specialty Glass and Optical Fiber Technologies (GLASSFIB)	1079.843	790.937	726.526
12	Clean Water: Sustainable Options (Clean Water)	0.000	11.425	11.505
13	CSIR Knowledge Gateway and Open Source Private Cloud Infrastructure (KNOWGATE)	0.000	7.719	2.707
14	Very High Power Microwave Tubes : Design and Development Capabilities (MTDDC)	54.541	53.401	85.381
	Total : CSIR-CGCRI	2927.179	2010.981	1802.412
L	aboratory: CSIR-Central Mechanical Engineering Research Institute	e (CSIR-CME	RI), Durgapu	ır
1	Multifunctional electrodes and Electrolytes for Future Technologies (MUTLIFUN)	8.500	4.513	11.636
2	Clean Coal Technology (TapCoal)	67.039	51.653	45.318
3	Novel Energy Effective Metallic Materials for Automotive and General Engineering Application (LWM)	33.461	11.008	14.496
4	Engineering of Disaster Mitigation and Health Monitoring for Safe and Smart Built Environment (EDMISSIBLE)	9.158	6.866	4.407
5	Development of Novel CSIR Technologies for Manufacturing Tailored and Patient-Specific Bioceramic Implants and Biomedical Devices at Affordable Cost (BIOCERAM)	10.572	22.930	15.978
6	Development of a technology for optimal extraction of locked-up coal from underground mines using artificial pillars (DeCoalArt)	24.041	29.884	33.082
7	Innovative Technologies for Health Assessment and Damage Mitigation of Structures (I-HEAL)	19.626	20.285	9.533
8	Robotics and Micro Machines (ROuM)	890.044	869.151	872.040
9	Autonomous Underwater Robotics (UnWaR)	347.641	675.279	799.057
10	Intelligent devices and smart actuators (InDeSa)	229.021	172.569	169.136
11	Development of underground coal gasification technology in India (CoalGasUrja)	14.980	15.324	1.688
12	Development of suitable design methodology for extraction of coal at greater depths (>300 m) for Indian geomining conditions (DeepCoal)	2.748	2.269	3.862
13	Clean Water: Sustainable Options (Clean Water)	0.000	9.178	32.124
14	CSIR Knowledge Gateway and Open Source Private Cloud Infrastructure (KNOWGATE)	0.000	0.000	7.677
15	Very High Power Microwave Tubes : Design and Development Capabilities (MTDDC)	14.736	12.352	17.696
16	Advanced Instrumentation Solutions for Health Care and Agro-based Applications (ASHA)	19.525	8.266	0.000
17	Development of Advanced Materials for Next-Generation Energy-Efficient Devices (D-NEED)	6.500	20.734	27.564
18	Measurement for Innovation in Science & Technology (MIST)	13.005	3.597	6.274

			Rs. Lakh
Title of the Project	2013-14	-	2015-16
Total : CSIR-CMERI	1710.597	1935.858	2071.568
Laboratory: CSIR-Indian Institute of Chemical Biology (CSIR-IICB), Kolkata		
 Factors Governing competent gamete production and reproductive dysfunction (PROGRAM) 	e 69.393	62.706	87.700
2 Emerging and re-emerging challenges in infectious diseases: Sysbased drug design for infectious diseases (SPIenDID)	tems 11.650	13.200	19.996
3 Genomics of Medicinal Plants and Agronomically Important Traits	(PlaGen) 8.750	11.025	9.934
4 Medicinal Chemistry for stem cell biology and regenerative medic (MEDCHEM)	ine 19.108	8.811	14.000
5 Integrated NextGen approaches in health disease and environme toxicity (INDEPTH)	ntal 76.093	60.090	74.721
6 Understanding supra molecular ensembles and machines (UNSE	EN) 164.104	126.742	178.345
7 Host Interactome analysis: Understanding the Role of Host molecular Parasitic Infection (HOPE)	ules in 441.521	380.274	326.422
8 Neurodegenerative diseases: Causes and Corrections (miND)	363.609	283.725	339.299
9 Therapeutics of Chronic Obstructive Pulmonary Disease (COPD) Related Respiratory Disorders (TREAT)	and 178.437	123.609	167.557
10 Plant-Microbe and Soil Interactions (PMSI)	25.911	16.095	22.219
11 Epigenetics in Health and Disease (EpiHeD)	10.125	11.850	14.249
12 Man as a Superorganism: Understanding the Human Microbiome	(HUM) 144.194	104.561	133.312
13 Centre for BIOtherapeutic Molecule DISCOVERY (BIODISCOVE	RY) 108.657	83.207	93.000
14 Genomics and Informatics Solutions for Integrating Biology (GEN	ESIS) 73.076	27.517	27.930
15 Genome Dynamics in cellular organization, differentiation and ena (GenCODE)	antiostasis 26.220	28.819	44.500
16 Bio-energetic Disorders: A multi-model approach to monitoring ar management (BenD)	nd 1110.347	444.424	534.536
17 Organic reactions in generating innovative and natural scaffolds (ORIGIN) 15.754	18.764	25.746
Development of Novel CSIR Technologies for Manufacturing Taile Patient-Specific Bioceramic Implants and Biomedical Devices at A Cost (BIOCERAM)		127.000	61.526
19 CSIR Knowledge Gateway and Open Source Private Cloud Infras (KNOWGATE)		6.905	2.843
Total : CSIR-IICB	2904.915	1939.324	
Total West Bengal	7542.691	62264.747	6051.817
Grand Total all States	77424.417	62264.747	75501.710

List of Significant Achievements attained

- 1. An Earthquake Warning System (EqWS) comprising seismic warning systems with LAN connectivity for generation of alarm signal on major earthquake developed which is being used by the Delhi Metro;
- 2. An Integrated Global bus Avionics Processing System, popularly called Mission Computer developed;
- 3. Developed an electronic system, named 'Ksheer-Scanner', which is capable of detecting adulterants such as urea, salt, detergent, liquid soap, boric acid, caustic soda, and hydrogen peroxide in milk. Also a handheld milk adulteration tester for domestic usage for detection of adulteration in milk launched;
- 4. A mercury-free plasma (MFP) UV-lamp developed for water disinfection systems which would provide water free of environmentally and health hazardous mercury;
- 5. 4 kg class and <300mm class fully Autonomous Fixed Wing Micro Air Vehicle developed;
- 6. Micro electromechanical (MEMS) Pressure systems Sensors developed;
- 7. Autonomous Under Vehicle (AUV) technology developed;
- 8. Bore Sighting System developed;
- 9. Recycling of Zinc from Alkaline Battery Waste technology developed;
- 10. Development of Head UP Displays for various aircrafts;
- 11. Development of Postural Stability Assessment System;
- 12. Creation of a unique, modular, agile intensified and continuing pilot plant facility for fine and specialty chemicals (called Indus MAGIC). More than 40 patents/disclosures have been filed and 150 journal publications and two books published;
- 13. Low cost and compact membrane technologies for desalination and water purification systems developed;
- 14. Low grain arsenic rice variety of safe human consumption developed:
- 15. Multipurpose gear oils developed;
- 16. Development of Shape Memory Alloys, Allumini metal matrix composites and different kind of foams (carbon & Metal):
- 17. Development of Fiber Laser Systems;
- 18. Development of novel non-vascular stent designs and prototypes;
- 19. Collagen based wound healing technology developed;
- 20. Number of biological and chemical leads identified for treatment of diseases like Cancer, TB, Diabetes, Malaria, ulcer etc.;
- 21. Car Driving Simulator for Driver Diagnostics developed;
- 22. Health Monitoring technology for various types of structures developed;
- 23. A Composite National Facility for Materials, Mechanism and Sensors established;
- 24. Development of Underground Coal Gasification Technology;
- 25. Indigenous Magnesium production Technology developed;

- 26. New Varieties of medicinal and aromatic plants developed;
- 27. A Centre for High Altitude Biology established;
- 28. New type of functional food products developed;
- 29. A state-of-the-art Lipid Research Facility established;
- 30. Multi-Scale Modeling platform for applications like carbon-fluix, estimation, weather simulation, Natural Hazards, Cyber Security etc. developed;
- 31. Protection of Traditional Knowledge like Ayurveda, Unani, Siddha and Yoga of the country through Traditional Knowledge Digital Library.