

## PROJECTS ACCOMPLISHED

A number of projects have been accomplished by the Department which are listed here as under:

S.No	Project	Sponsoring /user Agency	Scientists involved	year	Objective
1	Water Quality Mapping of Dal and Wular Lakes Phase-I & Phase-II	Space Application Centre, Ahmedabad	Dr. M.A.Kawoosa Mr. S.A.R Shah Dr. Hanifa Bano Dr. Tasneem Keng	1987	To develop methodology for map and monitoring the water quality of lakes.
2	Snow-Melt Run off studies on Lidder and Sind Basins in Kashmir using remote sensing	DST, GoI	Mr. M.A.Kakroo Dr. Hanifa Banoo	1991	To conduct hydrological modeling of the area
3	Land-use/Land Cover Mapping of J&K State	N.R.S.A, Hyderabad	Mr.G.M.Naik Mr.G.C.Singh Mr.Shakil Ahmed	1993	To generate district-wise Land use/Land cover maps of the state using IRS 1A/1B hard copy satellite imageries
4	Ground Water Targeting in Kashmir Valley	State Govt.	Mr. S.A.R Shah	1993	To develop expertise in Remote Sensing application for ground water
5	Environment Impact Study of Kishan Ganga HEP	Power Development Department	Mr. S.A.R Shah, Mr. G.A.Malik, Mr. N.A.Kakroo	1993	To collect environmental base line data project area.
6	Management Action Plan of Wular Lake	Departmental Activity	Mr. G.A.Malik DR. Hanifa Bano Mr. S.A.Ramshoo	1994	To formulate a comprehensive eco-development plan for the Wular Lake
7	Mapping for Integrated Mission for sustainable development of Doodganga and Chenani watersheds	NRSA, Hyderabad	Mr. G.C.Singh, Mr. Humayun Rashid, Dr. Hanifa Bano, Mr. S.A.R Shah Dr. Tasneem Keng Dr. Tanveer Ahmed	1995	To generate an integrated database on Doodganga and Chenani watersheds
8	Forest Mapping of Udhampur District	State Govt.	Dr. Hanifa Bano	1995	To conduct vegetation analysis of the area.
9	Urban land-use and sprawl mapping of Srinagar city	State Govt.	Mr. Humayun Rashid	1996	To analyze the sprawl of the city of Srinagar using old maps and SPOT satellite imagery
10	Environmental Management Plan of Hokersar Game reserve	State Govt.	Mr. Humayun Rashid	1996	To conduct detailed analysis of land cover and seasonal water spread dynamics for generating an environmental Management Plan for the

					area
11	Environmental Change Detection of Anchar Lake	State Govt.	Mr. Humayun Rashid	1996	To develop a methodology by which lakes could be monitored with the help of multi date satellite imageries.
12	Mapping of Flood Affected Areas in Kashmir Valley	State Govt.	Dr. Hanifa Bano	1996	To map the flooded areas in Jhelum valley
13	Mapping of Horticultural Land use in Pulwama District	State Govt.	Dr. Hanifa Bano	1996	To identify various horticultural plantations
14	Management Plan of Dachigam National Park	State Govt.	Dr. Hanifa Bano	1996	To develop methodology for generating base data on Dachigam national Park
15	Geo environmental study of Dal lake and its catchment.	UEED	Mr. S.A.R Shah	1996	Geo environmental appraisal of Dal lake catchment area
16	EIA and EMP of Baghlihar HEP	PDC	Mr. S.A.R Shah	1997	Preparation of EIA and EMP including CAT of project area
17	Integrated Watershed Mapping of National Highway- 1A	State Govt.	Mr. Humayun Rashid	1997	To generate data on the Microwatersheds along National Highway -1A for formulating ecological rehabilitation plan for the same
18	Geological Mapping of Ladakh region	State Govt.	Mr. S.A.R Shah	1997	Remote Sensing application for Mineral prospecting.
19	Eco-monitoring of Manasbal Lake and its surrounds.	State Govt.	Dr. Tasneem Keng Mr. G.C.Singh	1998	To identify the various ecological problems of the lake and its surrounds.
20	Directory of lakes and water bodies of Jammu & Kashmir using remote sensing data	Departmental activity	Dr. Hanifa Nasim	1998	To map out spatial extent of lakes as depicted on the SOI sheets
21	Nation wide Wasteland Mapping Project	NRSA	Dr. Hanifa Bano Mr. G. C. Singh Mr. Humayun Rashid Mr. S.A.R Shah Dr. Tasneem Keng	1999	To prepare map and report of wasteland categories of J&K

22	Limnological studies of Wular Lake	State Govt.	Dr. Tasneem Keng	2001	To generate a detailed data/baseline information for helping in monitoring future management of the lake body.
23	Medicinal Plants of Kashmir Valley and their distribution	State Govt.	Dr. Tasneem Keng Dr. Hanifa Bano	2002	To generate a database on medicinal plants
24	EIA, EMP and SMP of Sawalkote HEP	Power Development Corporation	Mr. S.A.R Shah Mr. G.C Singh Dr. Hanifa Bano Dr. Tasneem Keng Dr. Tanveer Ahmed Mr. Mauli Manzoor	2002	To prepare EIA, EMP and SMP reports of Sawalkote HE Project area
25	Survey of Potential and actual area under Sericulture through remote sensing & GIS	Central Silk Board G.O.I.	Dr. Hanifa Bano Mr. G.C.Singh Dr. Tasneem Keng Mr. Kuldeep Mehta	2004	To generate a spatial database on existing and potential areas under siriculture
26	Desertification Status Mapping of Leh	SAC Ahmedabad	Mr. S.A.R Shah, Mr. G.C Singh, Dr. Hanifa Bano	2004	To prepare DSM map and report of Leh.
27	Impact of Human settlements on some rural lakes of Kashmir	Ministry of Environment & Forest, G.O.I, New Delhi	Dr. Tasneem Keng	2004	To identify the causes and impacts of human activities around water bodies and develop a conservation strategy.
28	Wasteland updation Mapping of J & K State	NRSA, Hyderabad	Mr. Humayun Rashid Mr. S.A.R Shah Dr. Hanifa Bano Dr. Tasneem Keng Mr. R.D. Sharma	2004	To generate updated district-wise digital database on waste land maps for a national wasteland mapping exercise.
29	EIA and EMP of Nimu-bazgo H.E.P	NHPC	S.A.R Shah with University professor's team	2005	Preparation of EIA and EMP including CAT of project area
30	Detailed Urban Land use mapping for Zonal Plan preparation of Zakura Gulabbagh area of Srinagar	Srinagar Development Authority	Mr. Humayun Rashid	2006	To provide a detailed urban land use map of the area for zonal plan preparation by SDA.
31	GIS based forest density stratification and time series analysis using digital	MOEF, New Delhi	Mr. Humayun Rashid	2006	To study the changes in Forest cover in J&K from 1994 to 2004

	<b>image processing and GIS techniques.</b>				
32	<b>National (Natural) Resources Information System</b>	<b>SAC, Ahmedabad</b>	<b>Mr. Humayun Rashid, Dr. Hanifa Bano, Mr. S.A.R Shah, Dr. Tasneem Keng Dr. Tanveer Ahmed Khan</b>	<b>2007</b>	<b>To generate GIS database on the natural resources of J&amp;K</b>
33	<b>Methane Gas Emission from the Paddy fields of Kashmir</b>	<b>SAC, Ahmedabad</b>	<b>Mr. S.A.R Shah Dr. Tasneem Keng</b>	<b>2008</b>	<b>To study the emission of green house gasses in the paddy lands of Kashmir</b>
34	<b>Bio-diversity conservation of Tsomorari and Tsoker wetland</b>	<b>SAC, Ahmedabad</b>	<b>Mr. S.A.R Shah</b>	<b>2009</b>	<b>To study the high altitudinal lakes of Tsomorari and Tsoker</b>
35	<b>Detailed Land-use/Land cover and Water spread mapping of the Dal Lake using Quick Bird imagery</b>	<b>Lakes and Waterways Development Authority</b>	<b>Mr. Humayun Rashid</b>	<b>2010</b>	<b>To delineate water spread of the Dal Lake</b>
36	<b>Eco-sensitivity zonation mapping of the protected areas</b>	<b>State Wildlife Protection Department</b>	<b>Mr. Humayun Rashid Mr. Majid Farooq</b>	<b>2010</b>	<b>To assist the Wildlife Protection Department in delineating the ecosensitive zones around the protected areas.</b>
37	<b>Mapping of the Rural Road Connectivity under PMJSY Project</b>	<b>State Plan</b>	<b>Dr. Hanifa Nasim Dr. Tasneem Keng</b>	<b>2010</b>	<b>To identify and map out road roads constructed under PMJSY Project</b>
38	<b>Space Based Forest Cover Watch using very high resolution satellite imagery</b>	<b>Departmental Activity</b>	<b>Mr. Humayun Rashid</b>	<b>2010</b>	<b>To monitor the changes if any in the forest cover over time using temporal satellite data</b>
39	<b>NRC-Land use/Land cover</b>	<b>NRSC, Hyderabad</b>	<b>Mr. Humayun Rashid</b>	<b>2011</b>	<b>To generate Land cover database on 1:50,000 scale</b>

	<b>50 K National Mapping Project</b>		<b>Dr. Hanifa Nasim</b>		
<b>40</b>	<b>NRC-Land use/Land cover 50 K National Wasteland Mapping Project</b>	<b>NRSC, Hyderabad</b>	<b>Dr. Tasneem Keng</b>	<b>2011</b>	<b>To generate wasteland database on 1:50,000 scale</b>
<b>41</b>	<b>Biodiversity Characterization at Landscape Level</b>	<b>NRSC, Hyderabad</b>	<b>Mr. Humayun Rashid</b>	<b>2011</b>	<b>To generate vegetation type database on four districts of J&amp;K as part of a national Biodiversity Project</b>
<b>42</b>	<b>Land Degradation Mapping Project</b>	<b>NRSC, Hyderabad</b>	<b>Mr. S.A.R Shah</b>	<b>2011</b>	<b>To generate database on degraded lands of J&amp;K as part of a national project</b>
<b>43</b>	<b>Rajiv Gandhi Drinking water Mission Project (Phase-III)</b>	<b>NRSC, Hyderabad</b>	<b>Mr. S.A.R Shah Dr. Tasneem Keng</b>	<b>2011</b>	<b>To generate database on ground water resource of J&amp;K as part of a national project</b>
<b>44</b>	<b>Identification of wastelands in J&amp;K State for industrial use</b>	<b>Departmental activity</b>	<b>Dr. Tasneem Keng</b>	<b>2011</b>	<b>To identify the potential wastelands that could be utilized for industrial activity in the State.</b>
<b>45</b>	<b>Updation of directory of lakes and water bodies of Jammu &amp; Kashmir using remote sensing data</b>	<b>Departmental activity</b>	<b>Dr. Hanifa Nasim Dr. Tasneem Keng</b>	<b>2011</b>	<b>To conduct a comparative analysis of the spatial extent of lakes as depicted on the SOI sheets and latest satellite imagery</b>
<b>46</b>	<b>National Wasteland Change Analysis Project</b>	<b>NRSC, Hyderabad</b>	<b>Dr. Tasneem Keng</b>	<b>2011</b>	<b>To highlight the changes in wastelands since the first cycle mapping of wastelands</b>
<b>47</b>	<b>Snow Avalanche and Landslide Mapping</b>	<b>State Plan</b>	<b>Mr. S.A.R Shah</b>	<b>2011</b>	<b>To map out the snow avalanche prone areas</b>
<b>48</b>	<b>Application of remote sensing and GIS in Sericulture Development – A case study of Bandipur and Reasi districts</b>	<b>NESAC, Shilong</b>	<b>Dr. Hanifa Bano Dr. Tasneem Keng</b>	<b>2012</b>	<b>To identify potential areas for development of mulberry and to develop a network of sericulture information linkage and knowledge system</b>

49	<b>National Urban Information System(NUIS)</b>	<b>NRSC, Hyderabad</b>	<b>Dr. Hanifa , Mr. S.A.R Shah Dr. Tasneem Keng</b>	2012	To generate detailed database on 22 towns of J&K State
50	<b>Measuring Physical Accessibility to Healthcare Network and Population Coverage Modeling in J&amp;K State using Geo-informatics</b>	<b>Health &amp; Medical Education Department</b>	<b>Mr. Humayun Rashid</b>	2012	To delineate existing catchment areas of the health facilities in J&K State and to scale up the network for the uncovered population so that patients are able to access the basic facilities within travel time of 60 minutes.
51	<b>Classification of Lakes and Wetlands of J&amp;K as per Wetland Rules of 2010</b>	<b>Departmental Activity</b>	<b>Dr. Tasneem Keng</b>	2012	To classify the water bodies as per wetland Rules of 2010 for facilitating management and conservation.
52	<b>Environmental Impact Assessment and Environmental Management Plan of Sonamarg Tourist Resort</b>	<b>Departmental Activity</b>	<b>Mr. S.A.R Shah</b>	2012	To underline the carrying capacity of the tourist resort and to formulate the Environmental Management Plan (EMP) for the area
53	<b>Land use/Land cover 50K Second Cycle Mapping</b>	<b>NRSC, Hyderabad</b>	<b>Mr. Humayun Rashid Dr. Hanifa</b>	2012	To detect the changes in landuse/ land cover since the first cycle mapping
54	<b>Groundwater Mapping under Rajiv Gandhi National Drinking water Mission Phase-IV Project</b>	<b>NRSC, Hyderabad</b>	<b>Dr. Tasneem Keng</b>	2014	To zero-in on the ground water prospects in the state using remote sensing technology
55	<b>Status report on Dynamics of Builtup Land in Sonamarg Development Area</b>	<b>Departmental Activity</b>	<b>Dr. Tasneem Keng</b>	2015	To generate the data base of Sonamarg Development Area.
56	<b>Monitoring of</b>	<b>WUCMA</b>	<b>Dr. Tasneem</b>	2017	To provide near real time

	<b>Wular Lake Phase-I</b>		<b>Keng</b>		<b>geospatial information for assisting in monitoring the works under the centrally sponsored conservation project on Wular Lake.</b>
57	<b>Geospatial Monitoring of Priority Areas in J&amp;K using high resolution satellite images</b>	<b>S &amp; T Council</b>	<b>Mr. Humayun Rashid</b>	2012	<b>To provide near real time processed and value added temporal satellite images for assisting in monitoring the various priority areas in J&amp;K</b>
58	<b>Soil Resource Mapping (Completed for Jammu &amp; Srinagar District)</b>	<b>SLUSI New Delhi</b>	<b>Mr. Majid Farooq</b>	2013	<b>The objective of Soil Resource Mapping is to demarcate and identify Priority watershed in the catchment areas on 1:50,000 scale. It provides information on physiography, slope, soil deptt., Surface Texture, Land use, Land cover, surface condition and existing management practices.</b>
59	<b>Land Degradation 3<sup>rd</sup> Cycle Mapping</b>	<b>NRSC</b>	<b>Mr. Majid Farooq</b>	2016	<b>To detect changes in Land Degradation status of J&amp;K</b>
60.	<b>Waste Land change analysis Cycle III</b>	<b>NRSC</b>	<b>Dr. Tasneem Keng</b>	2017	<b>To detect and highlight the changes in wasteland since 2<sup>nd</sup> Cycle.</b>

