**GIS-based System for preparation of Command Area Development (CAD) Plan, Environment Impact Assessment (EIA) & Environment Management Plan (EMP) for Indira Sagar & Omkareshwar Projects**

for

**Narmada Valley Development Authority (NVDA)**

- **About**
  - With the objective of improving irrigation & hydroelectric power generation capacity of Madhya Pradesh, 9 major projects on Narmada river are planned, Indira Sagar & Omkareshwar projects are amongst them.
  - The CAD plan preparation for the districts of Dhar, Barwani, Khargone & Khandwa under the command area of Indira Sagar & Omkareshwar projects is towards compliance of conditions imposed by GOI, Ministry of Environment & Forest (MOEF), Ministry of Water Resources and Planning Commission in line with decisions / directions from Narmada Valley Development Authority (NVDA).
  - To minimize the adverse impact, if any, due to planning, implementation and operation of these development projects on the environment, environmental impact of the projected development of the command area and mitigation measures for the same needs to be planned. Preparation of these CAD plans and EIA / EMP reports require a sophisticated GIS-based decision support system for each of the project.
  - Spatial data captured from maps/satellite images on administrative boundaries, land use, drainage pattern, soil profile, contours etc. and attribute information on various parameters constitute inputs to GIS system,

- **Objective(s)**
  - Integration of digitized spatial data, thematic information (satellite data) & attribute data on selected parameters for the project area of approx. 5 Lakhs Hectares within the Narmada Basin.
  - Development of an appropriate GIS-based customized application software for decision support in development planning towards preparation of Command Area Development (CAD) plan of Indira Sagar & Omkareshwar projects.
  - Generation of required thematic maps.
  - To enable preparation of Environment Impact Assessment (EIA) & Environment Management Plan (EMP) for the project areas.

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<tr>
<th><strong>System Requirements</strong></th>
<th><strong>Software</strong></th>
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<tr>
<td><strong>Minimum Hardware</strong></td>
<td></td>
</tr>
<tr>
<td>P-IV Processor ~1 GB RAM</td>
<td>ARCGIS</td>
</tr>
<tr>
<td>HDD 40 GB</td>
<td>MS-ACCESS</td>
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<tr>
<td>17” Color Monitor</td>
<td>WINDOWS</td>
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<tr>
<td>Laser Color Printer</td>
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