METHODOLOGY

🔸 DATA INFORMATION :

All the data download from https://bhuvan-app3.nrsc.gov.in/data/download/index.php#.
DEM IMAGE :
SATELLITE - Cartosat – 1.
VERSION – CartoDEM Version – 3 R1.

🔸 STEPS ON GIS SOFTWARE:

- All the work done by QGIS Software.
- All the Reservoir Digitize from https://bhuvan-app3.nrsc.gov.in/data/download/index.php#.
- All the cartosat Dem images download in QGIS software → Raster → Miscellaneous → build virtual Raster → input all Dem images → Uncheck the box of "Place each input file into a separate band" → Run.
- After mosaic → processing → tool box → search "fill sinks" → click on "Fill Sinks (wang & liu)" → input the mosaicking Dem → save locations of fill , flow directions , water shade basin → Run,
- In toolbox search "channel network" →click on channel network and drainage basin→ save locations of Strahler order, Drainage Basin and Channel →Run.
- Open drainage basin → on toggle editing →select one basin by select features by area options → Right click on drainage basin → Export → same as layer → put a name in specific folder → choose projections →ok. (similarly extract all the basin area)
- Create a layout

🔸 COMPLEXITY:

- The bhuvan site work very slow when we download cartosat dem. automatically download same tiles dem image.
- For create hall Indian dem image the image download restriction is a big issue.
- For this map open source software work very slow.

🔸 USES OF MAP:

This map gives us information about drainage system of India. The drainage basins are area of where water from rain or snow melt drains downhill into a body of water such as a river, lake, wetland or ocean. The drainage basin includes both the streams and rivers that convey the water as well the land surface from which water drains into those channels.