

Spatial Database for Environment Studies of Projects

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SUMMARY

It is to carry out compulsory to Preliminary Environment Assessment, Initial Environment Assessment (IEA) or Environmental Impact Assessment (EIA) studies prior to implantation development programs in Nepal. Environmental protection Act 1997 and Rules 1998 of Nepal and guidelines of major multinational financial institution like ADB, WB will provide guidelines on assessment and mitigation of environment effects.

It involves preparation of terms of reference (TOR), scoping documents, Environment Management Plan (EMP), resettlement action plan (RAP) and monitoring framework to effective monitoring at the implementation phase and carry out base line survey, qualitative and quantitative analysis, social impact assessment (SIA). The major task is also land acquisition for the projects.

Digital topographical maps are prepared for the project areas at 1:500 – 1:10,000 (point clouds for 5m to 100 m interval), digital cadastral map at the scale of 1:500 – 1:2500 and present land use maps at prepared using aerial/satellite imageries of about 0.5 or better resolution. Base line survey is carried using questionnaires of all affected land owners along with FGD survey method. Extensive field visit was carried out by experts and their findings on environmental and social impact described in the reports. Various experts present their finding in verbal texts but they could be easily presented in GIS formats/ spatial data base, which are easier to understand the situations.

In this article, it is briefly described how the various environmental related assessments like IEA/EIA and SIA are carried out, specify minimum spatial database and the available spatial data base are utilized in Nepal for proper assessments and monitoring of environment, and acquisition of real estate property smoothly for the project.