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Use of the modern technology for future topographic mapping requirements

Mapping methods are changing rapidly to cater to present day requirements. In Sri Lanka initially, Ground Survey Methods (using plane tables) were used to capture topographic data to prepare one inch to one mile maps. In the early 1980's the Survey Department of Sri Lanka launched a project to prepare 1:50,000 and 1:10,000 hard copy topographic maps using aerial photographs.

However, with the development of information technology the use of digital topographic data has become essential for development work. When topographic data (roads, streams, land use, contours etc.) is stored in a computer environment for display and easy analysis by a computer, it is known as digital topographic data. In order to keep pace with the times the Survey Department has upgraded Analogue photogrammetic instruments, to produce digital topographic data. Recently the department successfully carried out few projects to provide digital topographic data for development work, within a very short period of time.

Today information technology is playing a major role for decision making and planning activities. In future, the demand for topographic digital data will further increase due to the necessity for making correct decisions in matters related to land. It is imperative that we introduce a mapping programme, using modern technology to fulfill the future requirement

Under these circumstances within next 3-4 years the Survey Department has to establish small scale topographic data base (suitable for 1:50,000) for the entire country, medium scale topographic data base (suitable for 1:2,0000 for all urban areas, To achieve the above targets following activities have to be done;

- Technical and Organization Structure for data bases,
- Procurement of Equipment and Software,
- Staff training,
- Transforming the hard copy maps to digital from by scanning,
- 1:20,000 Aerial photography coverage for the entire Country,
- 1:10,000 Aerial photography coverage for the Urban Areas,
- Ground controls using Global Positioning Systems,

- Aerial Triangulation, stereo Compilation and field verification,
- Database establishment and Cartography

As a fair amount of funding and training are required it will become necessary to obtain foreign funding and assistance.