

THE GEOMATICS SUBSECTOR

About 80 percent of Mexico's geographic information is out of date. Large-scale databases of digitalized information will be needed for Mexico to complete its transformation into an industrialized nation.

The efforts of the Mexican government to modernize the economy and compete on a world level have been severely hampered by a lack of geographic, demographic and cadastral information. This is leading to increased emphasis in government programs towards the collection and distribution of this type of information.

Cadastral surveys are those that identify every discrete plot of land by owner. They are used primarily for land-use zoning and property taxation purposes. A cadastre is a public register of real property. The lack of adequate municipal cadastral data means that only a very small proportion of property taxes in Mexico are ever collected.

To compound the problem, almost 80 percent of the geographic information held by the *Instituto Nacional de Estadística, Geografía e Informática (INEGI)*, National Institute for Statistics, Geography and Informatics, is considered out of date. This creates major problems for the *Secretaría de Desarrollo Social (SEDESOL)*, Secretariat of Social Development, which is the largest user of geographic, demographic and cadastral information. To fill the information gap, *SEDESOL* has embarked on a massive program to completely re-map all of the cities included in the *Programa de las 100 Ciudades*, the 100 Medium Cities Program. The *Banco Nacional de Obras y Servicios Públicos (BANOBRA)*, National Bank for Construction and Public Works, contributes half of the funds. Under that program alone, approximately US \$200 million will be spent by states and municipalities on cadastral projects by 1997.

The Mexican geomatics industry is underdeveloped, and lacks the capability and capacity to undertake all of this work. While the number of companies in the industry has grown, only a few of them have the expertise and technology to bid on government tenders for integrated projects. While aerial mapping and surveying are prerequisites for any geomatics system, computer systems are essential for the assembly of the resulting data in a retrievable form.

Canadian firms have the advantage that *INEGI* has agreed to adopt Canadian industry standards for cadastral services. Only about half of the municipalities involved in the regional development plan have digitalized data of any kind, so there is a substantial opportunity.

The Mexican geomatics industry has grown significantly over the past few years, and now consists of almost 50 companies. Seven companies dominate the municipal cadastral industry. The largest of these, *Sistemas de Información Geográfica (SIGSA)*, has 300 employees, and is widely regarded as the industry leader.