

graphic, demographic and cadastral information. SEDESOL is responsible for regional development planning, including the allocation of financial assistance to state and local governments. To fill the information gap, it has embarked on a massive program to completely re-map all of the cities included in the **100 Medium Cities Plan**. Under that program alone, approximately \$200 million will be spent by states and municipalities on cadastral planning by 1997.

The Mexican geomatics industry is underdeveloped, and lacks the capability and capacity to undertake all of this work. Only a handful of companies have the expertise and technology to bid on government tenders for complete integrated projects. In particular, only the largest firms have a capability for aerial mapping and surveying. These services are prerequisites for many projects, and the companies that provide them have a strong influence in the selection of geomatics technologies and services that Mexico will purchase.

At this time, only Mexican firms are allowed to provide aerial mapping and surveying services. Under the NAFTA, these restrictions will be removed, but not until the year 2000. To take advantage of the immediate opportunities and establish a market presence before the restrictions are removed,

Canadian companies will have to form joint ventures or technological partnerships with Mexican firms. Under the government's plan, geographical information will be updated every five years. Companies that succeed in introducing their technologies in the initial phases will have an advantage in future bids.

Canadian firms have an advantage in that INEGI has purchased a Canadian-developed geographical information system, SPANS, and it is encouraging states and municipalities to use compatible systems. Only about half of the municipalities involved in the regional development plan have digitized data of any kind, so this represents a substantial opportunity for Canadian firms.

THE 100 MEDIUM CITIES PLAN

One of Mexico's most pressing regional development problems has been an ongoing migration from rural areas to the largest cities, especially Mexico City, Guadalajara, Monterrey and Puebla. Partly because of poor planning and the lack of information, urban growth has been almost completely uncontrolled, leading to severe environmental degradation and overloaded social services.

To counter these deleterious effects, SEDESOL has embarked on a massive program to devel-

op 100 medium-sized cities. The goal is to create an attractive alternative for rural migrants, to encourage balanced growth and to reduce the environmental impact of overloaded social services.

The designated cities are distributed across all 31 states. The program encompasses infrastructure development, pollution abatement and the development of social service facilities. Each of the cities has been assigned to one of four project phases depending on their priority for development. The program began in 1990, and the second phase will be completed some time in 1994.

The overall program is guided by full mapping and geographic zoning of each city. A copy of this information must be provided by the municipality to SEDESOL, which is building a large database. About one-quarter of the cities have been mapped as part of Phase 1 and 2 of the 100 Medium Cities Plan. In each city, the typical project duration is three years from initial planning to completion of cadastral work.

The long term goal is for these projects to be self-funding through increases in tax collection. Property taxes in Mexico go largely uncollected because of the lack of reliable cadastral data, and some estimates predict a 90 percent increase in tax collections as a result of the program. Private industry will

