

Spatial Data Infrastructures and Planning Support System Implementation

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Abstract

Spatial data infrastructure development, structure and maturity were evaluated as part of a case-based analysis of planning support system implementation in two U.S. counties and their municipal seats. Results indicate that a well-established SDI - regardless of whether it is centered in the planning department - is important for successfully supporting PSS implementation. While data issues are no longer significant in most jurisdictions, technical expertise with ICT is often a lynch pin for more sophisticated SDI maintenance and PSS use. Though widespread, GIS use in planning departments lacks sophistication with little evidence of more complex use. More sophisticated applications (e.g., scenario development, indicator-based impact assessment) require higher levels of knowledge and problem solving skills. Consultants play an especially critical role in PSS adoption decisions in local planning environments (though not necessarily in sustained PSS use). Consultants consider the presence of existing local government SDIs as necessary for improved efficiency and long-term viability of PSS adoption and use, citing data availability and technical support from local GIS specialists as key characteristics; complexity of planning issues and usability are considered major barriers to use, emphasizing SDI standards and training as critical for fostering PSS use.

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