impact statement (EIS) are established, made to measure to the project or plan at stake. Another important conclusion from the Dutch practical experience is, that " the best learning is by experience".

TuG1

THREE MILE ISLAND NUCLEAR ACCIDENT : IMPACT ON RESIDENTIAL PROPERTY

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The effects on residential property values in proximity to Three Mile Island before and after the 1979 accident were measured using hedonic pricing model. The use of hedonic pricing models for measurement of the effects on residential sales prices were only intended to measure the values people perceive as the possible effect. What would happen to the property values if there was a nuclear explosion and properties were actually damaged by radiation contamination is an entirely different problem. In both instances, however, damage to property value is real in the eyes of the buyers and the sellers.

In order to determine any possible net effects on property values following the TMI accident in March of 1979, it was necessary to determine if the presence of the plant itself might have had any effects, positive or negative, on residential property values before the accident. Any before-accident effects must be taken into account to accurately determine the net effects after the accident.

Distance was considered an important variable. Property values (measured by sale prices adjusted for inflation) in various distance zones around TMI were compared with a control area. Tests for the differences between parameters before and after the accident were compared using a " contrast " procedure, as well as the usual tests of individual parameters for significant effects. The before and after model results suggested that there was probably a small negative effect within two miles of the TMI plant after the accident. Properties in the distance zones2- 5 miles and 5- 10 miles experienced significant increases in value after the accident. Data from seven years after the accident suggested that the 0-2 mile distance zone may be recovering.

SuR1

THE CANADIAN FEASIBILITY STUDY OF THE THREE GORGES DAM PROPOSED FOR CHINA' S YANGTZE RIVER : THE IMPACT ASSESSMENT PROFESSION' S DIRTIEST LAUNDRY.

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The Three Gorges Dam proposed for China's Yangzi (Yangtze) River would displace an unprecedented number of people; those from rural areas could not expect to find acceptable livelihoods due to the lack of available land of quality comparable to that of the area to be flooded. In addition to environmental impacts, sites would be lost of irreplaceable cultural value to many people in China.

A feasibility study of Three Gorges prepared by the CIPM Yangtze Joint Venture (CYJV), sponsored by the Canadian International Development Agency (CIDA) endorses the project. The report became public through Canada's freedom of information act, revealing a series of flaws in the evaluation systematically overstating the dam's benefits and understating its impacts. An analysis of the dam the Canadian feasibility study provides a dramatic illustration of widespread problems in environmental impact assessments of major development proposals throughout the world, and of the procedures for their evaluation. The case of Three Gorges invites the question of what level of impact would be judge unacceptable if this one is not.

SaI3

ADDRESSING NEW TOOLS AND TECHNIQUES WITH THE USE OF NEW CAD TECHNOLOGY FOR MORE EFFECTIVE VISUALIZATION ASSESSMENT AND INTEGRATION IN THE ENGINEERING AND PLANNING COMMUNITY : A LOOK AT FOUR CASE STUDIES OF SUCCESSFUL STRATEGIES

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Recent technological advances in the world of Computer Aided Design have paved the way for cost effective fast analysis of both new and existing data through the use of increased functionality, performance and ease of use. With the prevalent world environmental concerns, any tool that allows for more effective visualization of both existing conditions (for analysis) as well as scenario modeling is in extreme demand.

Four case studies will be used to illustrate successful strategies using simple technology to solve complex challenges. The first two case studies involve using existing data in an innovative approach to allow greater visualization for impact assessment. The first project is the Boston Harbor Toxic Waste Cleanup Project working in a joint venture with the United States Geological Survey. The second project addresses using new visualization techniques in CAD for Human Exposure Assessment of an industrial accident involving the release of some 5,000 gallons of toxic super-cooled liquid Chlorine in Los Angeles County. The last two case studies involve implementing new technology in a developing country. Case study # 3 is a project involving integrating & implementing a cost effective computer automation system for the new megaproject for the secondary water system for Mexico City. This entails both remote field based electronic data collection as well as post processing functionality for civil engineering, urban planning and cost effective utility management. The last case study involves implementing a fully integrated CAD/DB system for the complete redevelopment of El Salvador using new

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