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
Agriculture and Forestry

**Satellite Monitoring of Land Cover / Land Use Change Over 15 Years and its
Impact on the Environment in Gebze / Kocaeli - Turkey**

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Abstract: The rapid industrialisation of an area requires quick preparation of actual land-cover/land-use (LC/LU) maps in order to detect and avoid overuse and damaging of the landscape beyond sustainable development limits. Satellite Remote Sensing and Geographic Information System technologies fit very well for long-term monitoring and assessment of such effects. As a pilot area for the use of such technologies, Gebze district near metropolitan Istanbul is considered. The study is centred on the documentation of LC/LU changes resulting from fast and mostly unregulated industrialisation and urbanisation over the period 1986 - 1998 by satellite images of the area. A comparison is made among observed patterns of LC/LU of the study area and the land-use patterns projected by the regional planning administration prepared in 1986. Fast change in LC/LU patterns overshooting the planned borders over a short time is observable. Present results may also provide an inventory of the area prior to the 17 August, 1999 Marmara earthquake.

Key Words: Satellite Remote Sensing, Geographic Information Systems, Image Classification, Land-Cover/Land-Use, Temporal Changes

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