IKONOS データと Landsat TM/SPOT HRVIR データを併用した 水田利用変化のモニタリング ー中山間地域における小規模水田を対象として一

Synergetic use of Landsat TM/SPOT HRVIR and IKONOS data for terrace rice fields monitoring

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Abstract: Although satellite remote sensing provide large-scale coverage of traditional agricultural region, most "high-resolution" instruments, such as Landsat ETM+, SPOT HRVIR, provide limited descriptive resolution of the Japanese traditional agricultural landscape. With the launch of the IKONOS satellite in 1999, imagery with a 4m spatial resolution in multispectral mode can now be combined with other satellite data archives for change detection. We demonstrate this potential by combining SPOT/Landsat and IKONOS image to detect change in the traditional terrace rice fields for Awaji Island, Hyogo, Japan. According to our analysis using data in 1987 and 2001, losses in rice paddy fields over this period are faster at the hilly mountainous region and slower in flat agricultural region. Synergetic use of IKONOS and SPOT/Landsat appears to be a relevant source of information to show change and fragmentation in traditional terrace rice fields.