

APPLICATION OF KOMPSAT II IMAGERY FOR CARBON EMISSION INVENTORY MAP

E. Chang^{*a} J. Kim^b I. Lee^c Y. Choi^d G. Kim^e

^b Ziin Consulting, Space Lab, 514 Yongbieachunga,75 Naesu,Jongno, Seoul, Republic of Korea

^e MLTM, Geoinformatics, Jungangdong 1, Gwancheon, Republic of Korea

^d University of Seoul, Geoinformatics, Siripdae 13, 130-744, Seoul, Republic of Korea

^a Ziin Consulting, Geography, 514 Yongbieachunga,75 Naesu,Jongno, 110-070, Seoul, Republic of Korea

^c Chungnam Development Institute, Environmental Research, Keumryong, Gongju, Republic of Korea

Technical Commission VII Symposium 2010

KEY WORDS: Kompsat II images, Classification, Carbon emission

ABSTRACT:

Various approaches have been tried to estimate carbon emission model from leaf to globe. Satellite imagery is one of the sources to make land cover and land use data, usually in national or continental levels. Efforts to reduce carbon dioxide have started to be made in local governments. We tried to get LULC data for City of Boryong, Chungnam Province, using KOREAN Multi-Purpose Satellite II, 1 meter resolution data and other GIS data. Training vectors are selected from data of Korean Land Information System, supervised and unsupervised classifications were mixed to get the 5 classes and 18 classes. The more classes we get, the more error were turned out. To convert to carbon inventory, greenhouses and other point source data were digitized and weighted to make carbon emission maps. Natural ambient carbon sink can be added into policy for carbon emission inventory map, on the base of satellite images.

TOPIC: Land cover classification

ALTERNATIVE TOPIC: Remote sensing applications