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Discussions

Interactive comment on "Deriving a per-field land use and land cover map in an agricultural mosaic catchment" *by* B. Seo et al.

Anonymous Referee #2

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General Comments: Seo et al. present a high resolution land use and land cover (LULC) map for an agricultural catchment with frequent land cover change in South Korea. In addition to providing LULC coverage's for 2009- 2011 with multiple classification schemes, they compare their dataset with a MODIS global land cover dataset. The authors point out that this area has been studied intensively, this dataset will be useful in other studies dealing with agricultural practices in the area, particularly by alleviating some of the scaling and change/time issues. The data is easily retrievable, and has detailed metadata for the different classification schemes.

Specific Comments: Section 3.3 line 9- It is stated that there is general agreement between the survey data and the MODIS data for croplands and grasslands. Direct comparison with differences in the deciduous broadleaf forest might suggest that, but

considering uncertainty due to access to the forest if the deciduous broadleaf forest and mixed forest classes are combined, they represent about 82-90% (2009 & 2010) of the survey reported area. In contrast if the cropland and cropland/natural vegetation mosaics classes are combined the MODIS data over predicts the area by 140-160% (2009 & 2010). Although it is important to relate directly to the IGBP classes, the differences, particularly in relation to agricultural classes, should be noted.

A note specifying that in 2011 only half the catchment was surveyed should be added to the relevant tables.

In the introduction a strong case is made for the need for better resolution LULC data, yet the summary (Section 5) is very brief. Adding additional discussion as to what the results of this study mean for the use of MODIS or other global data sets for running Earth system models would be beneficial.

Technical Comments: HaeanCover_Legend.xls- this file has very detailed land cover information, but there are cells that are highlighted in green/red/yellow- is this significant for the end user? If so, an explanation in the HaeanCoverREADME.pdf would be useful. In the table associated with the 2.2 Legend section of that document the description of Super class reads 'Super-class value was given in case specific type was not identified', revising to 'in the case that a specific type. . .' would make it more clear. This was of specific interest as it is the only column in the Legend.xls that does not have something in every cell. A minor note considering the data is available for those interested, but in Fig. 5 the inland water and semi-natural areas are not distinguishable.