Making a Land Use Map and Estimation of Agricultural Biomass Distribution in Northeast Thailand

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Abstract:

In this study, we made a land use map in agricultural area in northeast Thailand using two Landsat/ETM+ images and ground survey data. At first, we made a crop calendar of main crops in order to make a land use map. Comparing classified land use map and test site map made from a panchromatic image of Quick Bird and ground survey. Paddy fields and fields of the land use map correspond to then of test site map. Further more, we classified main crops (wet season rice, dry season rice, sugar cane, cassava) from time series NDVI images calculated from Landsat/ETM+ data sets. For correcting wet season rice fields, we used 7X7 matrix. We will estimate agricultural biomass distribution using estimated crop cultivation map. As a result, wet season rice area estimated from land use map was corresponds to statistical data. Another crops areas were over estimated than statistics data. In spite of over estimates, we can understand to the distribution of main crops.