

Impact of Private Oil Palm Expansion on Indonesia Tropical Forest Deforestation Rate: Case Study in the Province of Riau

Authors : Arzyana Sunkar, Yanto Santosa, Intan Purnamasari, Yohanna Dalimunthe

Abstract : A variety of negative allegations have criticized the Indonesian oil palm plantations as being environmentally unfriendly. One of the important allegations thus must be verified is that expansion of Indonesian oil palm plantation has increased the deforestation rate of primary tropical forest. In relation to this, a research was conducted to study the origin or history of the status and land use of 8 private oil palm plantations (with a total of 46,372.38 ha) located in Riau Province. Several methods were employed: (1) conducting analysis of overlay maps between oil palm plantation studied with the 1986 Forest Map Governance Agreement (TGHK) and the 1994 and 2014 Riau Provincial Spatial Plans(RTRWP); (2) studying the Cultivation Right on Land (HGU) documents including the Forestry Ministerial Decree on the release of forest area and (3) interpretation of lands at imagery of bands 542, covering 3 years before and after the oil palm industries operated. In addition, field cross-checked, and interviews were conducted with National Land Agency, Plantation and Forestry Office and community figures. The results indicated that as much as 1.95% of the oil palm plantations under study were converted from production forest, 30.34% from limited production forest and 67.70% from area for other usage /conversion production forest. One year prior to the establishment of the plantations, the land cover types comprised of rubber plantations (49.96%), secondary forest (35.99%), bare land (10.17%), shrubs (3.03%) and mixed dryland farming-shrubs (0.84%), whereas the land use types comprised of 35.99% forest concession areas, 14.04% migrants dryland farms, and 49.96% Cultivation Right on Land of other companies. These results indicated that most of the private oil palm plantations under study, resulted from the conversion of production forests and the previous land use were not primary forest but rubber plantations and secondary forests.

Keywords : land cover types, land use history, primary forest, private oil palm plantations

Conference Title : ICEBESE 2017 : International Conference on Environmental, Biological, Ecological Sciences and Engineering

Conference Location : Paris, France

Conference Dates : September 21-22, 2017