

ABSTRACT

This study aims to analyze the production and household income of farmers based on the presence of oil drilling wells and to analyze the impact of oil drilling activities on the production and household income of oil palm farmers in Pasir Putih Village, Ranto Peureulak Subdistrict, East Aceh Regency. The study used primary data obtained through observation, interviews, and questionnaires from 30 farmer respondents who were divided into three land groups, namely P1 (land with active drilling wells), P2 (land with inactive drilling wells), and P3 (land directly bordering active drilling wells), with 10 respondents in each group. Data were analyzed using quantitative descriptive analysis to determine farmers' production and income, while differences in production and income were analyzed using the Kruskal–Wallis test with the assistance of SPSS. The results showed that the average productivity of oil palm in P1 was 13,666.917 kg/ha/year, P2 was 8,387.766 kg/ha/year, and P3 was 14,598.683 kg/ha/year. The Kruskal–Wallis test for oil palm production obtained a value of $H = 19.254$ with Asymp. Sig. = $0.000 < 0.05$, indicating a significant difference in oil palm production among the three land groups. Farmers' household income also showed a significant difference, with a value of $H = 7.061$ and Asymp. Sig. = $0.029 < 0.05$. Oil drilling activities have a positive impact in the form of additional income through land rental and wages from drilling work, while the negative impacts are related to land conditions and the plantation environment surrounding the drilling activities. Thus, oil drilling activities have both economic and environmental impacts on oil palm farmers' households in Pasir Putih Village.

Keywords: oil drilling, oil palm, production, household income, Kruskal–Wallis.