

# **Are forest plantation subsidies affecting land use change and off-farm income? A farm-level analysis of Chilean small forest landowners.**

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## **Abstract:**

Forest plantations have increased rapidly in the last three decades, to a large extent due to direct and indirect financial incentives. At the farm level, forestry incentives can affect the investment decisions of small forest landowners and bring socioeconomic externalities or unintended effects associated with farm management. The purpose of this study is to assess the ex post impacts of a forestry subsidy on land use changes and off-farm income experienced by Chilean small forest landowners. A structural equation mediation model (SEM) was estimated using a time frame of 15 years (1998–2013). To reduce the selection bias, propensity score matching (PSM) was performed prior to the estimation of the SEM. Results indicate that the subsidy had a significant effect on land use changes, as it increases forest plantations and replaces pastures primarily, but also crops and native forest to a lesser extent. In addition, beneficiaries of the subsidy had a marginal increase in off-farm income not explained by the increase in forest plantation.

## **Keywords:**

Structural equation models; Forestry subsidy; Chilean forest policy; Land use change; Off-farm income.