

## INTISARI

Penelitian ini bertujuan untuk: (1) mengkaji faktor-faktor yang mempengaruhi produksi, (2) mengestimasi tingkat efisiensi teknis, alokatif dan ekonomi, (3) membandingkan pendapatan, produktivitas dan tingkat efisiensi usahatani kentang antara sistem ladang berpindah dan usahatani menetap. (4) mengkaji risiko usahatani, (5) mengkaji perilaku terhadap risiko, (6) mengkaji faktor-faktor yang mempengaruhi perilaku dan (7) mengkaji hubungan antara efisiensi dan perilaku petani terhadap risiko. Penelitian dilaksanakan di Kabupaten Pegunungan Arfak, menggunakan data primer dan data sekunder. Sampel kampung secara purposive. Sampel petani kentang secara sensus, sebanyak 51 petani ladang berpindah di Distrik Hink, dan 53 petani menetap di Distrik Anggi. Analisis data menggunakan fungsi produksi cobb-Douglas, fungsi produksi *stochastic frontier*, dan *independent sample t-test*. Analisis risiko menggunakan fungsi produksi Just dan Pope, perilaku petani terhadap risiko menggunakan metode Khumbakar dan Tsionas. Hasil penelitian menunjukkan faktor yang berpengaruh positif terhadap produksi kentang perladangan berpindah adalah lahan, bibit, tenaga kerja, lama bera, umur, sedangkan pola tanam monokultur lebih meningkatkan produksi dibandingkan pola tanam campuran. Periode tanam, pengalaman, dan jarak ke kebun berpengaruh negatif terhadap produksi. Pada usahatani menetap faktor lahan, bibit, tenaga kerja, pengalaman, dan jarak ke kebun berpengaruh positif terhadap produksi, adanya penyuluhan dan pola tanam monokultur lebih meningkatkan produksi, sedangkan cara kerja berkelompok menurunkan produksi. Efisiensi teknis, dan ekonomi usahatani kentang secara menetap lebih tinggi dibanding perladangan berpindah, namun efisiensi alokatif usahatani menetap lebih rendah dibandingkan perladangan berpindah. Terdapat perbedaan sangat signifikan pada produktivitas, pendapatan, efisiensi teknis, ekonomi dan alokatif antara kedua sistem usahatani. Faktor lama bera menurunkan risiko produksi pada perladangan berpindah, dan faktor tenaga kerja pada usahatani menetap. Perilaku petani terhadap risiko produksi kentang sistem perladangan berpindah dan usahatani menetap seluruhnya menghindari risiko (*risk Averse*). Pendapatan berpengaruh sangat signifikan terhadap perilaku petani pada kedua sistem usahatani. Terdapat hubungan positif signifikan antara efisiensi teknis dan perilaku petani terhadap risiko produksi hanya pada usahatani menetap.

Kata Kunci : Efisiensi, ladang berpindah, pegunungan Arfak, perilaku risiko, usahatani kentang,

## ABSTRACT

This research aims to: (1) examine factors affecting production, (2) estimate the level of technical efficiency, allocative and economic, (3) compare income, productivity and efficiency of potato farming among shifting cultivation and permanent farming systems, (4) examine farm risk, (5) determine risk behavior, (6) to study the factors that influence behavior and (7) correlate the relationship between efficiency and risk behavior. The research was conducted in Arfak District, using primary and secondary data. The samples farmers were taken by census, which consist of 51 shifting cultivation farmers in Hink District, and 53 settled farmers in Anggi District. Estimation of Cobb-Douglas production function, stochastic frontier production function, and independent sample t-test were applied in analysis. Risk analysis uses Just and Pope production functions, and farmers' behavior on risk using the Khumbakar and Tsionas methods. The research results show that the factors that have positive effect on the production of potato shifting cultivation are land, seed, labor, fallow period, age, while monoculture cropping pattern increases production compared to mixed cropping pattern. Cultivation period, experience, and distance to the field have a negative effect on production. In settled farming factors such as land, seeds, labor, experience, and distance to the farming field have a positive effect on production, the extension and pattern of monoculture cultivation further increase the production, while the mechanism of the group work decreases the production. Technical and economics efficiencies of settled potato farming are persistently higher than shifting cultivation, but the allocative farming efficiency is lower than the shifting cultivation farming. There is a very significant difference in productivity, revenue, technical efficiency, economic and allocative between the two farming systems. Factor of fallow period reduces production risk on shifting farming, and that of labor force in settled farming, as well. Farmers behavior on the risks of potato production of shifting cultivation and settled farming system is entirely risk averse. Income has a significant effect on farmer behavior in both farming systems. There is a significant positive correlation between technical efficiency and farmer behavior on production risk only in settled farming.

*Keywords : Efficiency, pegunungan Arfak, potato farming, risk behavior, shifting cultivation*