Agriculture is the backbone of Pakistan’s economy. It employs 45% of the labor force, contributes 21.4% to the gross domestic product and provides food to more than 180 million people of the country. The required plethoric resources to produce food correspondingly protect the population against food insecurity. This study explores the distribution of land resources, their ranking and relationships with food security in all districts of Punjab province of Pakistan. The Gini Coefficient and multiple linear regression were employed. The results showed positive relationships between the Gini of operational land holdings and the proportion of land ownership titles with the proportion of food-insecure population and food availability while the rest exhibited negative relationships as theoretically and statistically justified, which is contrary to earlier studies. It is strongly recommended that policy-makers must redefine the threshold level of land ownership holdings/operational holdings to produce in abundance not only for food availability for household consumption but for food distribution across regions as well.