

Thesis Title A Statistical Analysis for Selecting Land Reform Areas.

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ABSTRACT

In the past, there was no really criteria to select the areas in Land Reform Areas of the government in order to reach the target of Land Reform Areas. The main purpose of this reseach is to find out what multivariate analysis techniques : Multiple Regression Analysis, Principal Component Analysis, Canonical Correlation Analysis and Discriminant Analysis can be used to select land reform areas.

By considering Spearman's rank correlation coefficient; comparing rank of areas from each statistical method to rank of areas from actual average annual income of people in each amphur, Multiple regression model was constructed. All of variables in model were set from problems of living that people in the land reform areas faced. Then 18 variables were selected by examining of correlation matrix. These variables were actual average anual income, percentage of household which has actual average annual income equal or more than 5,168 baht which is lowest average anual income for living in Land Reform Areas, percentage of household which work mainly in agriculture, percentage of area irrigated, percentage of land's mortgage household,

density of people, percentage of land owner, number of students per one teacher, percentage of area's rented from others, percentage of the holder who hold land equal or more than 100 rais, percentage of household which has radio, number of population per one public's health centre, average of area's rented per household, average of rice yield per rai, number of rice bank per one agricultural household, average area of holding per household, percentage of rice holdings cultivated household, and number of cattle bank per one agricultural household. A predicted value of average annual income which indicate level of development areas was taken from this Multiple regression model. The predicted value were ranked from the lowest to the highest. Consequently, the first ten areas were put in order from the poorest areas; Amphur Nakhon Thai Changwat Phitsanulok, Amphur Chat Trakan Changwat Phitsanulok, Amphur Chaiyo Changwat Ang Thong, Amphur Phan Thong Changwat Chon Buri, Amphur Muang Phitsanulok Changwat Phitsanulok, Amphur Khai Bang Rachan Changwat Sing Buri, Amphur Wat Bot Changwat Phitsanulok, Amphur King A. Nong Yai Changwat Chon Buri, Amphur King A. Nongya Plong Changwat Phetcha Buri, Amphur Wang Thong Changwat Phitsanulok, to the last ten non-poor areas; Amphur In Buri Changwat Sing Buri, Amphur Ban Bung Changwat Chon Buri, Amphur Muang Chon Buri Changwat Chon Buri, Amphur Khao Yoi Changwat Phetchaburi, Amphur Ban Lat Changwat Phetchaburi, Amphur Phrom Buri Changwat Sing Buri. Amphur Bang Rachan Changwat Sing Buri, Amphur Cha Am Changwat Phetchaburi, Amphur Sattahip Changwat Chon Buri, Amphur Tha Chang Changwat Sing Buri, for selecting land reform areas.

However it should be noted that examples used in this research are only 37 amphurs from 5 changwats of Central and North region of Thailand where there are much more area's rented problem. For further study, in order to investigate amphurs in a region or all amphur in the country, the Multiple regression model constructed in this research can be used.