2. Between explanatory variables there should be no multicollinearity: to the extent that one independent is a linear function of another independent, the problem of multicollinearity will occur in logistic regression, as it does in OLS regression. As the correlation among each other increase, the standard errors of the logit (effect) coefficients will become inflated. Multicollinearity does not change the estimates of the coefficients, only their reliability. High standard errors flag possible multicollinearity (www.chass.ncsu.edu).

Biplot Analysis

Biplot similarity provides plots of the n observations, but simultaneously they give plots of positions of the p variables in two dimensions. Furthermore, superimposing the two types of plots provides additional information about relationships between variables and observations not available in either individual plot (Jolliffe, 2002).

The plots are based on the singular value decomposition (SVD). This state that the (n x p) matrices **X** on observations on p variables measured about their sample means can be written

$$X = ULA'$$

where **U, A** are *(nxr),(pxr)* matrices respectively, each with orthonormal columns, **L** is an *(rxr)* diagonal matrix with elements $t_1^{1/2} \geq t_1^{1/2} \geq ... \geq t_r^{1/2}$, and r is the rank of X.

To include the information on the variables in this plot, we consider the pair of eigenvectors. These eigenvectors are the coefficient vectors for the first two sample principal components. Consequently, each row of matrix positions a variable in the graph, and the magnitudes of the coefficients (the coordinates of the variable) show the weightings that the variable has in each principal component. The positions of the variables in the plot are indicated by a vector.

MATERIAL AND METHODS

Source of Data

The data used in this study were collected from the KNPDT. These data were derived from data Potensi Desa (Podes) 2005 and Survei Sosial Ekonomi nasional (Susenas) 2006 conducted by Central Bureau of Statistics (CBS). The data consists of five categories as response variable and 33 explanatory variables which can be seen in Appendix 1.

Method
The methods used in this research were:
1. Data preparation.
   This step consist of selecting regencies with backward region status namely fairly backward, backward, very backward and the most backward regions.
2. Early data description.
3. The assumption of a logistic regression examination.
4. Data analysis.
   Analyze selected data with ordinal logistic regression. This analysis is conducted for each sub criteria of determining backward region status.
5. Determine the prior factors that influence backward region status.
6. Significant variables were further analyzed through biplot and then explain the relationship of these variables based on globally and part of regions (west and east).

The Software used in this research are Microsoft Excel 2007, Minitab 14, SPSS 13 and SAS 9.1.

RESULTS AND DISCUSSION

Early Description
According to the data released by KNPDT, there are 434 regencies in Indonesia. KNPDT has determined five categories of region index and status based on six major criteria, such as (1) economic, (2) human resources, (3) infrastructures, (4) regional finance, (5) accessibility, and (6) characteristic of region. Each criteria has indicators which are relevant to measure the criteria score. Then the GoI calculated region score with giving weight for each criteria based on their experiences and then multiply it with standardized data.
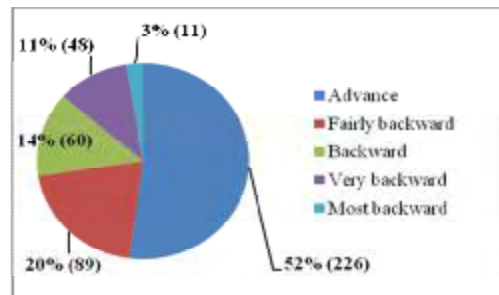

Figure 1. The number and percentage of regency with each status

Regencies with advance status were not used in this analysis because this research