UNFCCC/CCNUCC

CDM – Executive Board

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USE OF REGRESSION ANALYSIS IN METHODOLOGIES

1.   The Board noted that several new methodologies propose using multiple regression analysis to estimate baseline emissions or project emissions. The Board considers that safeguards in order to ensure conservativeness and rigor of the fitted regression model should be used. General guidance to achieve such objectives are listed below:

        (a)   In the process of fitting the regression, assumptions and requirements for regression models should be considered e.g. testing for multicollinearity;

        (b)   Independent variables that are likely to influence the dependent variable in question should be accounted for. Technical background information that may support the selection of such variables should be provided with the methodology for the review of the panel;

        (c)   Testing for statistical significance for all independent variables should be done. Independent variables which are statistically significant at 95% confidence level should be selected in the regression model;

        (d)   If the time series data is used to fit the regression, autocorrelation should be tested. In case autocorrelation is found to be statistically significant, time series analysis should be used instead of regression.

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