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The implications of risk management on the delivery and investments of biomass and other renewable energy projects

Aminu Bature and **Barbara Vardijan**
Birmingham City University, United Kingdom

Statement of Problem: The sheer volumes of research studies indicate that effective risk analysis has a profound effect on the early financing stages of bioenergy and other RE projects, its investments, and the decision making mechanism for risk transfer to adopt. However, there are little research data for project developers to utilize during initiation and planning phases of these projects. Renewable Energy technologies are only starting to be marketed and the lack of good information is crippling their development. A better understanding of the risks associated with bioenergy projects can help policy makers, project developers and risk management experts to deploy more clean energy.

Methodology and Theoretical Orientation: In this study the researcher focuses in the quantitative used of online survey method, by developing questionnaire using online portal and emailed survey web link to participants. This was followed by an in-depth comparative analyses between the quantitative empirical data collected and the secondary research information gathered during the literature review.

Findings: The study found that the risk factors associated the most to bio-energy projects is economic (47.73%) and environmental risks (45.45%). This finding is in agreement with the International Energy Agency IEA (2011) findings which showed that economic and socio-environmental risks have the highest impact on Return on Equity (ROE) and debt leverage capability of biomass technologies and projects.

Conclusion & Significance: The effects that risk management have on bioenergy and other renewable energy projects starts from the project initiation and planning stages (i.e. to attract investment and avoid negative financial impact on the projects), all the way through to executing and controlling processes where it plays an instrumental role of identifying, controlling and mitigating inherent risk and ensures project success all the way to the closing. It was recommended that bioenergy project developers should use systematic risk management methods such as RBS (Risk Breakdown Structures) as this help in better risk identification in the risk management cycle.

bature_aminu@yahoo.com