ABSTRACT
This study seeks to ascertain the effect of Sustainability Reporting on corporate performance of selected quoted companies in Nigeria. This research employed ex-post facto design. The sample for the study was made up of 96 companies selected from 126 companies quoted on the Nigerian Stock Exchange. This research utilised secondary data. A model specification based on regression model was used. The statistical technique employed in testing the hypotheses was Pearson product moment correlation technique aid by SPSS version 22. Findings from this study showed that Sustainability Reporting (proxied by environmental expenditure) impacts positively on financial performance (Proxied by Profit) of companies investigated. The study recommended among others that companies are encouraged to adopt this reporting system. Companies should also adhere to guidelines on environmental best practices and in investing in latest eco-efficient technologies that promote earth conservation, reduction in degradation and pollution of the environment inspired by a deep seated understanding that discourages the compromise of mortgaging ability of the future generation to meet their needs as they currently enhance profitability.

Keywords: Corporate Performance, Environmental Accounting, Sustainability Reporting, Nigeria
A key objective of business organizations is to consistently grow and survive on a long term basis. Most managers are aware that their organizations are part of a large system which has profound direct and indirect influence on their operations. This implies that if these organizations must effectively and efficiently meet their objectives, they should properly adapt themselves to their immediate surroundings where they are operating. The world is now facing serious challenges of environmental changes like global warming, health care and poverty. This is what Welford (1997) referred to as tangible environmental crises (severe water shortage across the world, decline in fish catches and global food insecurity). Viek and Steg (2007), Ezeabasili (2009) emphasized that as human population continue to grow, material consumption intensifies, production technology further expands and a constant reduction in the quality and quantity of environmental resources becomes evident. There is an ongoing concern about loss of biodiversity and nature fragmentation, over-fishing of the seas, shortages in freshwater availability, extreme weather events, global warming, air and water pollution, environmental noise and disregard for the protection of both the immediate and future environment. This type of environmental unsustainability associated with a shrinking resource base now spills over into social and economic instability.

Following from the above, therefore, many are looking to business to be part of the solutions to these environmental challenges. Welford (1997) maintains that firms seems content to see the natural system on the planet disintegrating, people starving and social structures falling apart. Business is central to the problem and must be central to the solution. Indeed the expectations of corporate responsibility on issues of environmental protection, human capital, human rights, and product safety are rapidly increasing. Major stakeholders like shareholders, employees, and financial institutions want business to be responsible, accountable and transparent. Unerman, Bebbington and O'Dwyer (2007) also states that human activities taking place today are considered by some people as having harmful impact on the society, ecology and economy which future generations will experience.

In reality, this is a position more widely accepted by an increasing number of people throughout the world. Many people argue that the rising social injustice suffered by large number of people, and the increasing damage to the ecosphere, are traceable to a dominant and almost unquestioned objective of maximizing economic growth. In these terms economic growth (characterized by energy and material-intensive production and exploitative social relations) is socially and
environmentally unsustainable (Unerman et al., 2007). Responding to these issues by business leaders help companies to mitigate risks, protect corporate brand and gain competitive advantage while helping to reduce poverty and better the quality of life for many. In some extreme cases, companies may consider their licenses to operate threatened overnight if their key stakeholders perceive significant discrepancies between their own values and the company's values. Unerman et al (2007) maintains that one way to look at these issues is in terms of long-term need to ensure that economic activity is socially and environmentally sustainable. In the short-term it may be possible to have economic growth, while damaging society and the environment. In the long-term this is impossible. For example, businesses need a stable society in which to operate profitably (although some business might generate profit from addressing the outcomes of social conflicts, such as businesses offering security service).

Therefore, if businesses operate in a manner which causes damage to the society and thereby resulting to a break down in the social harmony required to provide a stable context for operation, then such business activities are neither economically nor socially sustainable. In the longer term if business activities cause a level of damage of the ecosphere such that it cannot sustain human life on the scale we currently enjoy, then this is clearly neither socially nor economically sustainable as there can be no economic activities - let alone economic growth – without human life to sustain it. There is now a growing awareness that companies are made increasingly responsible for consequential environmental and social impact of their activities to the host communities and other stakeholders. Ekwueme (2011) opines that big firms which were usually seen as the exclusive concern of its owners are now seen as being responsible to society also. This implies that companies no longer pay attention to the maximization of shareholders' wealth alone but are embracing activities that will maximise the benefits accruable to all stakeholders. This implies that companies are positively responding to issues of sustainability. Thus White (2009) assert that “the pressure for corporations to reassure the public of their good behaviour has increased organisations are paying attention to their stakeholders as well as their stockholders.” Business managers are beginning to see that this approach to conducting business has to become a part of the strategy for their companies in order to prosper in the future.

There is increased expectation for all companies to be more transparent in how they treat the environment, how they handle their corporate governance issues, how they treat their employees, and how they treat their communities. Following from the above Unerman et al (2007) maintains that in practice, attempts to account for environmental, social and economic performance have become
more common among many organizations – particularly large multinational businesses. More broadly, the concept of sustainable development has become a central organizing theme within contemporary society, which in many ways is an astonishing achievement for an idea that is usually thought to have arrived on the public policy scene in 1987 with the publication of the Brundtland Report – a report named after Gro Harlem Brundtland, the prime minister of Norway (1981-1986). This follows the creation by the Secretary General of the United Nations, the World Commission on Environment and Development in 1983 to investigate the extent of the problem of the growing evidence of worldwide environmental damage caused by human activity. The group directed by the prime minister to carry out investigation became known as the Brundtland Commission. Under her direction the commission investigated environmental and economic issues around the world and found a strong international interconnection between ecology and economics. People all over the world expressed considerable concern for damage to the environment and its effects on their lives. In the Brundtland report it is clear that sustainable development is important to the future of fortunes of nations and individuals (White, 2009 & Edwards, 2005). Sustainable development concerns tend to focus on how to organize and manage human activities in such a way that they meet physical and psychological needs without compromising the ecological, social or economic base which enable these needs to be met (Unerman et al 2007). In the views of Hart (2007) corporations are the only organisations with resources, technology, the global reach, and, ultimately the motivation to achieve sustainability.

In response to their sustainable development policies and practices, many companies claim that they recognize their social and environmental responsibilities, in addition to their economic responsibilities, and are seeking to manage and account for these activities in an appropriate manner. Corporate sustainability reporting has become such an important issue that most companies are now embracing this evolving corporate reporting system. Statistics from Global Reporting Initiative (GRI) reflect this trend in Sustainability Reporting. The number of enterprises writing sustainability reports based on GRI framework worldwide increased from 150 in 2002 to 750 in 2005. “From 1 January to 31 December 2010, the number of sustainability reports registered on the GRI Reports List increased by 22 percent” (GRI, 2011). The use of Sustainability Reporting (a term used to describe a company's reporting on its economic, environmental and social performance) techniques has been increasing rapidly in recent years. An understanding of the basis of this reporting system, and its impact on corporate performance is very crucial in determining the essence of its application. The principal objective of this
research is to ascertain the effect of Sustainability Reporting on corporate performance of selected quoted companies in Nigeria. It is an accepted fact that many firms all over the world are taking up sustainability reporting practices. According to Global Reporting Initiative (2014) “thousands of organizations worldwide now produce sustainability reports. KPMG research shows that in 2008 nearly 80 percent of the largest 250 companies worldwide issued sustainability reports, up from around 50 percent in 2005.” Similarly, KPMG International Survey of 2014 which covers 34 countries (Nigeria inclusive) shows that 95 percent of the 250 largest global companies now report on their corporate social responsibility activities. Also, corporate responsibility reporting has gained ground within the Top 100 companies in each of the 34 countries (KPMG, 2014). This is in response to the demand for organisations to be more transparent in how they treat their economic, social and environmental activities as they affect their stakeholders. Sustainability Reporting is therefore seen as impacting substantially on performance of corporate organisations.

Worthy of note is that business managers and most academic literature on sustainability reporting generally recognize that this reporting system is advantageous. Therefore, any company not involved in sustainability reporting could be seen as striving towards unsustainable development. So far it is unclear what impact Sustainability Reporting has actually had on organisation strategies, practices and outcomes (Hubbard, 2008). The results of most researches conducted on sustainability reporting and financial performance are either inconclusive or contradictory, reporting positive or sometimes negative results. Burhan and Rahmanti (2009) concluded in a study that for the next researcher, due to inconsistent result it is necessary to re-evaluate other important variables that could determine company performance as well as consider longer time frame since their research covered only four years. In the light of these limitations this study is therefore set to find out the impact of sustainability accounting on corporate performance of some selected quoted companies in Nigeria. The specific objective is:

To determine the effect of environmental expenditure on profitability on profitability of selected quoted companies in Nigeria.

The study tested one Research Hypothesis, which is:

\[ H_0: \text{Environmental expenditure does not have any significant effect on profitability of selected quoted companies in Nigeria.} \]
LITERATURE REVIEW

Theoretical Foundation
Stakeholder Theory

A stakeholder is 'any group or individual who can affect or is affected by the achievement of the organization's objectives' (Freeman, Wicks and Parmar, 2004 in Fontaine, Harman & Schmid, 2006). The general idea of the stakeholder concept is a redefinition of the organization. In general the concept is about what the organization should be and how it should be conceptualized. Friedman (2006) in Fontaine et al (2006) states that the organization itself should be thought of as grouping of stakeholders and the purpose of the organization should be to manage their interests, needs and viewpoints. This stakeholder management is thought to be fulfilled by the managers of a firm. The managers should on the one hand manage the corporation for the benefit of its stakeholders in order to ensure their rights and the participation in decision making and on the other hand the management must act as the stockholder's agent to ensure the survival of the firm to safeguard the long term stakes of each group.

The definition of a stakeholder, the purpose and the character of the organization and the role of managers are very unclear and contested in literature and has changed over the years. Even the 'father of the stakeholder concept' changed his definition over the time. In one of his latest definitions Freeman et al. (2004) in Fontaine et al (2006) defines stakeholders as 'those groups who are vital to the survival and success of the corporation'. In one of his latest publications Freeman et al. (2004) in Fontaine et al (2006) adds a new principle, which reflects a new trend in stakeholder theory. In this principle in his opinion the consideration of the perspective of the stakeholders themselves and their activities is also very important to be taken into the management of companies. He states 'the principle of stakeholder recourse. Stakeholders may bring an action against the directors for failure to perform the required duty of care' (Freeman et al. 2004 in Fontaine et al 2006). All the mentioned thoughts and principles of the stakeholder concept are known as normative stakeholder theory in literature. Normative Stakeholder theory contains theories of how managers or stakeholders should act and should view the purpose of organization, based on some ethical principle (Freeman et al. 2004 in Fontaine et al, 2006). Another approach to the stakeholder concept is the so called descriptive stakeholder theory. This theory is concerned with how managers and stakeholders actually behave and how they view their actions and roles. The instrumental stakeholder theory deals with how managers should act if they want to favour and work for their own interests. In some literature the own
interest is conceived as the interests of the organization, which is usually to maximize profit or to maximize shareholder value. This means if managers treat stakeholders in line with the stakeholder concept the organization will be more successful in the long run.

Conceptual Review
An Overview of Sustainability Reporting
Sustainability Reporting has no single, generally accepted definition. It is a term generally used to describe a company's reporting on its economic, environmental and social performance. It can be synonymous with triple bottom line reporting, corporate responsibility reporting and sustainable development reporting, but increasingly these terms are becoming more specific in meaning and therefore subsets of Sustainability Reporting (KPMG, 2008). GRI (2011) defines sustainability reporting as the practice of measuring, disclosing and being accountable to internal and external stakeholders for organizational performance towards the goals of sustainable development. Dow Jones sustainability index in KPMG (2008) looks at Sustainability Reporting as a business approach that creates long term shareholder value by embracing opportunities and managing risks deriving from economic, environmental and social developments. Corporate sustainability leaders achieve long term shareholder value by gearing their strategies and management to harness the market's potential for sustainability products and services while at the same time successfully reducing and avoiding sustainability cost and risks.

Arndt, Isenmann, Brosowski, Thiessen and Marx-Gomez (2006) assert that sustainability reporting has its roots in environmental or non-financial reporting respectively. Sustainability Reporting is becoming more prevalent, driven by a growing recognition that sustainability related issues can materially affect a company's performance, demands from various stakeholder groups for increased levels of transparency and disclosure and the need for companies (and the business community more generally) to appropriately respond to issues of sustainable development (KPMG 2008 & Ivan 2009). Parliament of Australia (2010) state that sustainability reporting involves companies and organizations demonstrating their corporate responsibility through measuring and publicly reporting on their economic, social and environmental performance and impacts.
Sustainable Development, the Context for Sustainability Reporting

Aras and Crowther (2008) stated that sustainable development is a development that attempts to bridge the divide between economic growth and environmental protection, while taking into account other issues traditionally associated with development. It seeks to develop the means for supporting economic growth while supporting biodiversity, relieving poverty and without using up natural capital in the short term at the expense of long-term development. World Commission on Environment and Development (1987) in Bell & Morse (2008) and Edwards (2005) defines sustainable development 'as meeting the need of the present generation without compromising the ability of future generations to meet their own needs'. Aras & Crowther (2008) maintains that sustainable development is often misinterpreted as focusing solely on environmental issues. In reality, the concept is much broader as sustainable development policies incorporate three policy areas which are economic, environmental and social. In support of this Aras & Crowther (2008) emphasize that the 2005 World Summit outcome document, refer to the 'interdependent and mutually reinforcing pillars' of sustainable development as economic development, social development and environmental protection.

Ivan (2009) maintains that the release of the Brundtland Report in 1987 and the subsequent Summits of Rio and Johannesburg supported by the United Unions have helped to create the improvement of share consciousness on the need to reflect on how society can contribute to social welfare without threatening survival of biodiversity. This goes to show that companies now operate in a world where sustainable development concerns are increasingly on the agenda; in government, in the business world and society at large. Bebbington (2007) opines that the elements of sustainable development agenda, and specially the need to embed environmental and social elements into decision making, have begun to affect the language used by companies who are increasingly asserting that they seek to act in conformity with the principles of sustainable development. One way in which a guarantee to sustainable development is evidenced is by production of social, environmental, sustainable development and/or corporate social responsibility report by organisations. The trend in sustainability reporting is therefore guided by two fundamental factors. First, an increasing recognition of the potential for sustainability related issues to substantially affect a company's long term economic performances. Secondly, the need for the entire business world (and individual firms) to respond appropriately to issues of sustainable development (KPMG, 2008 & Ivan, 2009).
Since Sustainability Reporting is directly tied to the concept and goal of sustainable development its purpose is to provide information which holistically assesses company performance in a multi-stakeholder environment. Thus, to investors, sustainability reports are important as investors have gradually increasing regard for social and environmental risks as important indicators of enterprises' efforts to enhance corporate governance and increase transparency. Also, sustainability reports enhance the efficiency of corporate management. First, the reporting process helps the companies collect information on sustainable efforts and achievements, acknowledging the value of such information. Secondly, it aids the companies find the direction of innovation. Third, the increased communication with stakeholders based on sustainability reports is more effective than any other means of fostering dialogue. A good report can comprehensively display to the stakeholders the ability of the companies to manage social and environmental duties and risks so as to display their ability to manage financial risks. Through reports, enterprises can find a benchmark in sustainable development performance.

Corporate Performance
The concept of corporate performance has been a primary concern of business practitioners (managers and entrepreneurs) in various organizations because corporate performance is essential as exemplified in high performance organizations which are success stories because of their perceived effectiveness and efficiency in managing their operations and their positive contributions to their stakeholders well-being. Whereas, low performance entities are not, owing to their lack of such vital attributes (Makhamreh, 2000 & Jat, 2006). Performance is however, a difficult concept, in terms of definition and measurement. It has been defined as the end result of activity, and the appropriate measure selected to assess corporate performance is considered to depend on the type of organization to be evaluated and the objectives to be achieved through that evaluation (Hunger & Wheelan, 1997; & Jat, 2006). Zuriekat, Salameh and Alrawashdeh (2011) in contrastopines that performance measurement systems are considered information systems that are used to evaluate both individual and organizational performance. Until recently, firms concentrated on the use of financial performance measures as the basis of performance evaluation. Lin and Liu (2005) stated in business management that financial ratios are generally one of the measures used to evaluate a company's performance. Generally, the financial information of a company's business operations will be reported in the yearly financial statements, and a financial ratio simply constitutes an item divided by another in the financial statement. Financial ratios
can be seen as a preliminary reference for analyzing the business performance. This corresponds with Osisioma (1996) assertion that “ratios relate one set of values to another, with the resulting quotient serving as a measure, a standard or a norm by which performance is judged.” Traditionally, the measurement of an entity's performance usually employs the financial ratio method, because it provides a simple description of the entity's financial performance in comparison with previous periods and helps management to improve performance. Glautier and Underdown (2001) maintains that two aspects of a company's financial performance are of interest to investors. First, its financial performance may be assessed by reference to its ability to make profit. This agrees with Pandey (2005) assertion that profit maximization causes the efficient allocation of resources under the competitive market conditions, and profit is considered as the most appropriate measure of a company's performance. Hill and Jones (2009) similarly asserted that the key measure of an organization's financial performance is its profitability. Thus, ratios of financial efficiency in this respect focus on the relationship between sales and profit and profit and assets employed. Second, the financial performance of companies may be assessed in terms of the value of its shares to investors. In this way, ratios of financial performance focus on earnings per share, dividend yield and price/earnings ratios. The ratios used to measure the overall profit performance of a firm are termed profitability ratios. Pandey (1995) and Khan and Jain (2004) maintains that profitability ratios are determined on the basis of either sales or investment. According to Osisioma (1996) the ratios are aimed at bringing to light the profitability of a firm's operation, the management efficiency as measured by the returns on capital employed and the intensity of capital usage – the rapidity with which invested capital is turned over.

Empirical Review
A number of studies have investigated related topics to the effect of sustainability reporting and firm's performance and have come up with varying results. Some of these studies conducted from different parts of the world, including Nigeria are reviewed below. Asaolu, Agboola, Ayoola and Salawu (2011) examined sustainability reporting using six major oil and gas multinational companies operating in Nigeria. The study adopted content analysis method of analyzing data that was gotten from annual reports of selected oil and Gas companies to ascertain the degree to which their report conforms to best practices. Findings showed that sustainability performance indicators were not found in any of the organizations sampled.
Shehu (2015) studied the impact of corporate social responsibility on the financial performance of quoted conglomerates in Nigeria using eight (8) conglomerate companies quoted on the Nigeria Stock Exchange as at 31st December 2011. Due to the data availability of the companies and the fact that they are few in number, the study used census approach. The study used secondary data derived from the annual reports, NSE factbooks and Daily official lists of the NSE. The study covered a 6 year period ranging from 2006-2011 and multiple regression model was employed as the technique of data analysis using SPSS 16.0 software. Two of the independent variables (i.e. ER and CP) were found to have significant positive impacts and other one (i.e. EMS) negative impact. It was recommended that companies should embark on more rendering of social responsibility as this could lead to more profitability and regulatory authorities should produce clearly defined regulations on how to go about social responsibility issues of the companies.

Beredugo and Mefor (2012) evaluated the relationship between environmental accounting and reporting and sustainable development in Nigeria using the survey research design. Data was collected from a sample of 400 respondents out of a population of three million (3,000,000) people. Pearson’s correlation coefficient, student t-test and the ordinary least square methods were used for data analysis and findings revealed that environmental accounting and reporting is positively related to sustainable development and that they are consequences to noncompliance. He also discovered that stakeholders increasingly require firms to manufacture goods efficiently and at competitive prices without harming the environment.

Oyewo (2014) researched on sustainable development reporting practices by Nigerian banks using publicly quoted commercial banks in Nigeria. He sampled the banks based on the existence of a standalone report on sustainability reporting in the year 2012 annual report. Twelve (12) banks were selected for content analysis using correlation analysis to examine the relationship between variables. ANOVA was used to test for mean difference and findings revealed that sustainable development reporting is not dependent on size or on the extent to which organizations make profit. In addition, it was observed that despite the large sizes of banks their sustainability development is not appreciable.

**METHODOLOGY**

This research employed ex-post facto design. The ex-post facto research design as stated by Onwumere (2009) is the type of research involving events that have already taken place. This design is suitable for this research because it is not possible to directly manipulate or control any of the independent variables. This
is because the events have already taken place and therefore the research is being
conducted after the fact. In this study both the independent and dependent
variables exist and will be observed at the same time because the effect of the
former on the later took place before this time. The population of the study
comprises of non-financial companies listed on the Nigerian Stock Exchange
NSE as at 2016 that have consistently submitted their annual reports to the
NSE from 2002 to 2016. This comprises of 126 companies as per the NSE fact
book 2016. Some of these companies are multinational companies and as such
have adopted sustainability reporting in line with global best practices. They
integrate sustainability information in their annual reports. They are also large
capital companies which Ndukwe (2009) classify some as “A” segment of the
Nigerian Stock Exchange. From the 126 companies, a sample for this study will
be selected using the formula
Yamane (1967).
\[
n = \frac{N}{1 + N(e)^2}
\]
where;
\(n\) = sample size
\(N\) = Population size
\(e\) = Level of precision
Given a population of 126, the researcher assumes a margin of error of 5%

Therefore; using \(n = \frac{N}{1 + N(e)^2}\)

\[n = \frac{126}{1 + 126(0.05)^2}\]
\[n = 126/1 + 0.315\]
\[n = 126/1.315\]
\[n = 96\]
Therefore, \(n = 96\) companies
The selection of the 96 companies out of the 126 follows judgmental or
purposive non-probability sampling technique. With seventy six percent (76%)
of the population to be included in the sample size, it is believed that the sample is
a good representative of the working population under investigation. The data
from the sampled companies covers a period of 15 years (2003 to 2017) and was
transformed into specific attributes of the variables for the number of years the
research covers.
DATA ANALYSIS AND DISCUSSION OF FINDINGS

Hypothesis (H₀): Environmental expenditure does not have any significant effect on profitability.

Model Profitₙ = α₀ + β₂lnEₑₙ + µₙ.

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>.598ᵃ</td>
<td>.358ᵇ</td>
<td>.315</td>
<td>3.24940</td>
</tr>
</tbody>
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a. Predictors: (Constant), Environmental Expenditure
b. Dependent Variable: Profit.

Source: Output of SPSS v22

The findings in table 1 evinces the presence of a strong bearing between environmental expenditure and Profit of the companies. The value of the correlation coefficient represented as “R” of 0.598 (59.8%) provides the attestation. The coefficient of determination (R²) of 0.358 suggest that 35.8% of the variability in profit can be explained by changes in expenditure on environmental related activities while the remainder is accounted for by other extraneous factors not harnessed into the model.

The adjusted R² suggest the extent to which we can postulate about the result. In view of this, with 0.315 adjusted R² value we can speculate that the model specification avails a reasonable predictability of the effect of environmental accounting on profit.

In view of the foregoing, given that the p-value of 0.011 is less than 0.05 level of significant (p0.011<sig 0.05), we hence reject the null hypothesis and conclude that environmental accounting has significant effect on profit.
From the table 2, expenditure on environmental activities has t-value of 2.892 significant at p-value of 0.011 with partial correlation of 0.598 (59.8%) suggesting a strong interrelationship between the predictor variable and the criterion (Profit). It also reveals a positive slope coefficient of 0.636. Infusing this coefficient into the original equation will give the model: Profit = 1.002 + 0.636Ee + u

From the model estimation, it is shown that the predictor variable (Ee) has a positive coefficient. The implication is that for any unit incremental change in environmental expenditure, it is expected that Profit will correspondingly increase to the extent of the coefficient value of 0.636.

**CONCLUSION AND RECOMMENDATION**

The hypothesis from which model was designed tested whether there was no significant effect between environmental expenditure and profitability quoted companies in Nigeria produce an R value of 0.598 with f-ratio of 8.363 significant at p-value of 0.011 which is less than 0.05 (5%) level of significant adopted for the study. To that end, we rejected the null hypothesis and concluded that environmental expenditure has positive significant effect on profitability quoted companies in Nigeria.

Companies should maintain their place premium value on strategies geared towards reduction of their environmental footprint. Companies should also adhering to the letters of guidelines on environmental best practices and in investing in latest eco-efficient technologies that promote earth conservation, reduction in degradation and pollution of the environment inspired by a deep seated understanding that discourages the compromise of mortgaging ability of the future generation to meet their needs as they currently enhance profitability.
REFERENCES


The SIGMA Project (2003). The SIGMA Guidelines Toolkit: SIGMA guide to the global reporting initiative on sustainability reporting, Retrieved from


