Mad Users’ World - Paradox of Users and Polluters!!
- Make A Breakthrough in Environmental Accounting

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Abstract
If sustainability becomes part of expectations held by society, it must become a business goal-this ensures ongoing survival/competitiveness. Providing information about social and environmental performance will increase the trust a community has in the organization. Entity is treated as distinct from owners and ignores externalities caused by the reporting entity, expenses not controlled by the entity are excluded and externalities caused by the entity can not be reliably measured and so not recognized. This is the contention. This article is conceptual in nature and used secondary data. The limitations of the study are that primary data with secondary data can give a better interpretation. The current attempt is to leave the planet in the same state at the end of the accounting period as it was in the beginning by one the modes of accounting to create responsibility to the users and produces.

Keywords: Environment, Accounting, Pollution, climate

Introduction
The gradual flooding of the Statue of liberty, the city of Venice slowly is collapsing into the canals. Stonehenge is eroding under the extreme weather. World Heritage sites on five continents were bound to be affected by factors including rise in sea levels, intense storms and wild fires. It becomes difficult to save every heritage centre. There are going to have to be hard choices made in every country. Skara Brae, a 5000 year old Neolithic settlement in Scotland is at risk from coastal erosion and disappearing into the ocean. It is a very tough challenge, but if we recognize the scale of the problem and most people don’t realize how big it is or how fast the changes are coming. “It is important to recognize the adoption is continuous change,”
Beavers said. “It is not isolated action; it is not a single step. It is a really a process.” (The Deccan Herald, May 28, 2016).

Likewise, Lakes like Chilka (Orissa); Lok tak (Manipur), Dal and wular (Kashmir) etc, are heavily polluted. The coastal area of Mumbai has become acidic and polluted. Mercury has risen in the sea water in the Gujarat coast in India.

Charapunji (India) gets a bumper 11 metre annual rainfall while Jaisalmer (India) gets only 0.2 metre. In some region or the other, there are floods every year. If there are no floods, then droughts affect. There are more than 4600 large dams in India. One hundred dams are more than 100 years old. And 381 large dams are between 50 and 100 years old. In July 2007, Jaswant Sagar dam in Jodhpur, Rajasthan, collapsed. The 118 years old dam collapsed due to widespread in the downstream area. Dams were considered as solutions but now they pose many problems and challenges.

There are number of industries including heavy industries in India viz., 920 textile mills, 326 sugar mills, 110 Cement plants, 251 paper and pulp board mills, 8 major steel plants, 12 oil refineries, 47 pesticides mills, etc., discharging their wholly or partially treated effluents on land and water bodies. Eighty percent of the Indian population drinks polluted water from sources like rivers, lakes, ponds, wells. Most of the rivers are heavily pollute, e.g., river Ganga at Kanpur, Varanasi, Patna, Hooghly at Calcutta, Mahi at Baroda, Yamuna at Delhi, Mathura, Agra, Gomati at Lucknow; Khan at Indore, Chambal at Nagada, Narmada at Hoshangabad are highly polluted. The reasons behind all are due to the above mentioned heavy to medium to ordinary industries and buyers cause for pollution.

**Religion and environment**

If a Muslim plants a tree or sows seeds, when a bird or animal or person eats it, it is regarded as a charitable gift (sadaqah) for him”—imam Bukhari. Hygiene and cleanliness (tahara) is integral part to Islam and that it is actually a major sub-branch of Muslim belief. The Prophet used to repair his own shoes, sew his clothes. This shows reusing and repairing things instead of buying new is not a sign of poverty but they are a sign of power. (Authenticated by Al-Albani)

The pope John Paul II sent a message titled as “ Peace with God the creator, peace with all of creations” in 1990. The world peace is threatened lot only by the arm race but also by lack of due respect for nature. The tribal people of India, love and live and worship the nature which spell out the basis of this relationship. “Mankind has no right to abuse environment” says Pope Francis.
In Jainism, all elements have life, the earth, water, planet, animals and humans are said to have life force. Respect for all life is a cardinal principle of Jainism.

According to the Guatemalan Mayan vision of the cosmos, every form of life emerges from the same origin or seed. Some seeds become trees, others flowers, others water, others human beings. Interrelatedness calls for utmost respect between people and nature and among people themselves

Society, Politics and Economics
Society, Politics and Economics are inseparable therefore economic and accounting issues have to be examined along with the political, social and institutional framework in which the activity takes place. There is a social contract between business and society. Society allows a company to operate so long as it adheres to the norms and values of that society. The users consume more than what they can affordable. If an organization and the users do not operate legitimately, the society can revoke social contract. Business organization is the best place to address the social and environmental issues because they have longer terms of operations.

Management seldom tries to make proper arrangement to save the environment unless it is required as per law as there is no direct relationship between investment and benefits. Environmental accounting is taken to mean the identification and reporting of environment related cost such as liability cost and costs related to waste disposal. It is accounting for any costs and benefits that arise from change to a firm’s products and processes where the change also involves a change in environmental impact.[The Chartered Accountant 721 November 2005].

US President Barack Obama has announced his Clean Power Plan which will help shut down old coal power plants, prevent construction of new ones and promote renewable energy sources on a massive scale to reduce GHGs by 32% in 2030.

Pope Francis has announced its plan to reduce energy consumption by 50% in 2050 and increase carbon price by four folds. The Father of our nation has issued warning: that "nature can meet all the needs of humanity but it cannot satisfy its greed”. He embodied India’s civilisational message of “simple living high thinking”.

Sir Francis Bacon said, “Nature must be bound into service and made a “Slave”. Such a view point cleared the way and provided the justification for a very large scale disruption of environment in the last few centuries.

Meetings of world leader is not the need of the hour, indeed, meeting local women leaders is badly needed for sustainable development.

Modern economy is not capable of providing jobs and improving living standards for all. The gap between rich and poor is widening in nation
after nation. Real wages are declining as employment growth sputters. There are more than 100 million unemployed with no sign of promising new jobs. We have growth that impoverishes rather than enriches. The major barriers to reuse of water are psychological, not technical.

Empowerment of human is not possible by shifting from his native place, but finding jobs in his own native- Dr. Amartiya Sen, the economist from India. Instead of economy in service of community we have reverse. In the original Greek, economics (Oikonomia) meant ‘good housekeeping’ and it is that broader humanitarian vision that has vanished. “True economics, studies the community as a whole and locates market activity within it”- Herman Daly. Developing countries are fooled by the western policies of industrialization. In fact we have given up traditional knowledge and biological resources of the South to illogical, self-centered, erratic, consumerism, unsustainable and market oriented system of the West.

One-third of Greenland is already emptied the ice during summer. Oceans that have risen by 2.5 mm a year will start to rise by a steady 7mm a year. It is because Greenland heats up by at least 2.7°C Celsius. In many cases, the predicted warming exceeded 8°C Celsius. The Arctic Ocean icepaks has thinned by more than 30% in the past three decades which is equivalent to Netherlands each year during the same period. We burn nearly six billion tons a year fossil fuel and released 220 billion tons of carbon dioxide in 2014 to the atmosphere. Deforestation and land use have added 110 billion tones. The world loses 15 billion trees each year. (The Deccan Herald, May 4, 2016).

Climate change may render parts of the Middle East and North Africa uninhabitable, force people to migrate around 500 million (Max Planck Institute for Chemistry, Germany). High temperature reaching 46°C in summer, windblown desert dust may force people to migrate (The Deccan Herald, May 4, 2016).

The Solar Impulse 2, a solar powered aircraft, that has completed around the world journey to draw attention and give hope to clean energy technologies (The Deccan Herald, May 4, 2016, Page 6).

Bangalore city has touched almost 40°C in 2016, Summer began early in February instead of March. Bangaluru is no longer an air-conditioned city. Sometimes it is hotter than Chennai. (The Deccan Herald, May 4, 2016).

According to WHO, air pollution is claiming annually the lives of 7 million people world wide and 5,70,000 of them are from India. According to 2014 WHO report, Delhi is 11th most polluted city. The 2016 report, 20 most polluted cities are in India out of 3000 cities in 103 countries which includes Gwalior, Allahabad, Patna and Raipur-figure among top 7 seven most polluted cities (The Deccan Herald, May 21, 2016, pp 10).
Rain raises toxic foam levels at Bellandur lake (Bangalore, India). People struggle to bear the stench from polluted water body. The foam level that was earlier at 15 feet has increased to 25 feet on May 20, 2016 after a day rainfall (The Deccan Herald, May 21, 2016, pp 2).

Nearly 40 million Indian will be at risk from rising sea levels by 2050 which will have impact on Mumbai, Kolkota from India. The other cities are: Guangzhou and Shanghai in China, Dhaka in Bangladesh, Yangon in Myanmar, Bangkok in Thailand and Ho Chi Minh city and Hai Phong in Vietnam. Many of the cities will be affected due to coastal flooding and storm surge zone but have limited capacity to adapt due to their fixed location. The livelihood can be negatively impacted by natural disasters, economic crises and climate change. (UN Report-GEO-6, 2016) (The Deccan Herald, May 21, 2016, pp 6).

Environmental damage almost always hits those living in poverty the hardest. The overwhelming majority of those who die each year due to air, water pollution are poor people in developing countries. It is predicted by UNO that Bangladesh will be out of world map before 2050. One tsunami can wipe of this country as this country is flat and seven feet above the sea level. The business are citizens of society in that they benefit from society and so owe duties back to society in the same way that individual human citizen do.

Moving from wood to coal in Europe had taken between 96 and 160 years. Electricity took 47 to 69 years to enter into mainstream use. For example, Ontario shifted away from coal between 2003 and 2014. Indonesia took three years to move two third of the population from kerosene stove to LPG stove. France’s nuclear power program using 4% of the electricity supply to in 1970 has increased to 40% in 1982. Strong government intervention, shifts in consumer behavior with incentives and pressure from shareholders make all these possible (The Deccan Herald, April 19, 2016).

Significant shifts in technology, political will with regulations, tariffs and pricing regimes and behavior of users and adopters would help to move to a cleaner energy. According to Prof. Benjamin Sovacool, Director of Sussex Energy Group at the University of Sussex in the UK, future transformation can happen much more rapidly.

Intergovernmental Panel on Climate Change (IPCC) studies have showed that to keep global temperature rise within two degrees. The total carbon that can be put into the environment is about 1000 billion tons. According to a new study reported in Nature, 38% of oil reserves in Middle East, 50% of gas reserves of former Soviet Union countries and 82% of world coal reserves will remain un-burnt. IPCC projected 1000 billion tons we have already exhausted about 515 billion tons and the rate at which we
are putting carbon into the environment we will exhaust our carbon budget before 2040. It is the time to focus on Green GDP considering environmental degradation. It is the time to redefine, reorient business perception about business profits in the present global warming, global booming of pollution, climate change. It is the time to redefine financial accounting, recording costs and revenue, profit, divisible profit and rename it as environmental adjusted profits, environmental adjusted divisible profits, environmental adjusted EPS. It is the time to harmonise traditional financial bottom-line with environmental bottom-line new form of accountability but also new form of accounting.

**Environmental accounting**

“Environmental Accounting is the identification, measurement and allocation of environmental cost, the integration of these environmental costs into business decisions and the subsequent communication of the information to a company’s stakeholders.”

Accounting for environment helps in accurate assessment of costs and benefits of environmental preservation measures of companies (Schaltegger, 2000). It provides a common framework for organizations to identify and account for past, present and future environmental costs to support managerial decision-making, control and public disclosure (KPMG and UNEP, 2006).

Environmental accounting is a broader term that encompasses the provision of environment-related information both externally and internally. It focuses on reports required for shareholders and other stakeholders, as well of the provision of management information.

**Change development model from conventional model of accounting**

The conventional growth oriented profit maximization models should be re-oriented and models which can sustain economic development without sacrificing bio diversity and interests of future generations should be evolved and incorporated in development planning. Loss to environment should be included as an element of cost in all cost benefit analysis of companies. Economic growth rate should be discounted by the loss to environment. Net Profit, EPS, are to be discounted to the extent of environmental degradation contributed by companies to disclose true economic profits of the economic organizations to fulfill social contract and business organisations.

**Significance of study**

For India, both ‘Environment Protection’ and Economic Developments are the matters of great importance. However, there is need to tradeoff between environment protection and economic development(Make
In India. For this purpose, Environmental Accounting is required to measure the environmental impact of economic activities by corporate and reporting such environmental activities. A standard system of environment accounting is already in place in the form of Responsibility Reporting in India and Global reporting Initiative(GRI) world wide.

**Review of literature**

**Environmental Accounting and Profitability**

Different studies and their results in measuring the relationship between environmental disclosure and financial performances show a mixed results.

**The Centre for Promoting ideas, USA** found a positive association between profitability and Environmental Accounting.

**Waddock and Gravess(1997)** Corporate Social and environmental disclosure and financial performance(Profitability) has positive association.

**Coven et.al.(1987)** found no association between environmental accounting and profitability.

**Belkaoui and Kirkpin(1989)** There is a significant pair of correlation but an insignificant regression co-efficient for the return on assets and corporate socio-economic environmental accounting disclosure. It is also identified different terms are used under social responsibility accounting such as: Social Performance Information, Social Audit, Social Accounting, Social Responsibility Accounting and Social and Environmental Reporting.

**Healy&Palepu(2001)** and **Lundholm&Myers(2000)**, The research focus on relationship between voluntary disclosure and the effect of voluntary disclosure on return earnings.

**Choi(1998)** there is a lack of specific studies regarding Corporate Social Environmental Disclosures in both in Developed and developing countries and profitability and corporate financial performances are used as explanatory variable for different disclosure level. The relationship between CFP and CSEDs is a controversial issues but yet to be solved. The profitability of the reporting company is depressed due to additional costs associated with the Social and environmental disclosure.

**Roberts(1992)**, there is a positive relationship between profitability level of a company and CSED.

**Patten(1992)**, failed to find positive relationship between profitability and CSED and CSED has increased over years.

**Shil & Iqbal (2005)**, The most widely used technique for analysis of narratives in annual financial reports is Content Analysis. In order to deviate from this Multiple Regression Models is used. It was observed that most of the studies were conducted in developed world and very few studies focused on developing countries such as India.
Bassey Eyo Bassey, Sunday O.Effiok, E.Eton (2013) organizational performances enhanced due to environmental cost management which has influence on profitability. Lack of environmental reporting and disclosure standards significantly affects the reporting and uniformity in disclosure of environmental related information.

Akerlof (1970), More profitability firm are more likely to disclose more comparing to less profitability firm to screen themselves from less profitable firm.

Inchausti (1997) A good company has incentives to differentiate oneself from less profitable company in order to raise capital and managers of very profitable company can earn personal advantage such as continuing their position and compensation arrangement.

**Global Excise**

United Kingdom Companies Act requires companies to report on GHG emission in the annual report. Environment accounting is also known as “total cost accounting” or “Whole cost accounting”. A few companies in order to gain attention and stimulate interest, they use different name for it. For example, Barclays, the UK bank, names it as “Citizenship report”, Glaxosmithkline calls it as “ Corporate responsibility report” where as other companies uses name as “ESG” (environment, social and governance )report.

In Norway, publicly owned and listed companies must report on environment degradation and investments must be reported in the Board of Directors or separate report.

In France, the Grenelle II Act requires listed and large companies to report on Carbon Reporting in the annual Management report and in 2011 further disclosures on climate change is mandated.

In Denmark 1,100 of the largest companies are required to Carbon Reporting. Moreover climate and human rights are to be reported in the annual report.

In Malaysia, publicly owned companies are to publish Carbon report information in the annual report. Malaysia Stock Exchange requires listed companies to describe how material economic, environmental, social risks and opportunities are managed.

In Indonesia, reporting on CR in the annual company report is mandatory for publicly listed and Limited Liability companies.

In South Africa, the King III, code of government principle listed companies are required to apply King III or disclose why they do not.

The reporting system on environment either is to satisfy legal requirements or becomes a fashion to distinguish from other companies rather than accountability to environment. It is the time to disclose environmental cost incurred as part of financial statement and future
expected liability due to environmental degradation to be treated as liability in the balance sheet. Already there are mechanism to in place to disclose as a part of financial statements in order to create socially accountable to the society.

**ACCA Curriculum**

ACCA has introduced a new paper in 2013 namely “Environmental Accounting and Reporting” with the theme of “accountability, transparency and sustainability”. The social and environmental effects are assessed due to economic activity of the business. Traditional belief is that business need only report upon the things that are measurable and that are required under laws, accounting standards or listing rules

**Sebi**

**India:** In 2012, SEBI issued an order to top 100 companies based on market capitalization has to prepare stand alone Responsibility reporting is in this direction of recording of externalities and reporting legally in the financial accounting and auditing. In 2015 it is extended to 500 companies who are listed in BSE or NSE. In addition to the above, Companies Act 2013 also emphasizes 2% of the profits to be spent on CSR activities. All the companies who fulfill the above requirements as per SEBI have to follow pattern prescribed under Responsibility Reporting.

**Worldwide provisions and legislations**

The world bodies have developed disclosure schemes on environments. Some are voluntary in nature. The voluntary disclosure schemes are from **Carbon Disclosure Project (CDP)**, **Japan Voluntary ETS(JVETS)** and **California Climate Action Agency(CCAR)**. The regulatory disclosure scheme from the US State of New Mexico’s mandatory green house gas reporting, the California Global Warning Solutions Act (2006), National greenhouse and Energy Reporting System(NGERS) and the Australian Government’s National Greenhouse and Energy Reporting Act 2007.

The United States Environmental Protection Agency (EPA) provides a framework for identifying environmental costs. Environmental costs are divided into four categories. a) Conventional company b) potentially hidden c) contingent d) image/relationship costs.

Due to ISO 14001 certification of companies environmental management System has been increased in 2009 as compared to 2007.

World Academy of Science, Engineering and Technology 63 2012 Mark de Haan has discussed the modes of the international harmonization of environmental accounting: comparing the National Accounting Matrix
including Environmental Accounts of Sweden, Germany, the UK, Japan and the Netherlands. These countries have presented their results in a National Accounting Matrix including Environmental Accounts (NAMEA). The second section presents a preliminary comparison of the results which shows that comparable accounts will not automatically lead to comparable results.

United Nations *Handbook of National Accounting*, Studies in Methods Series F, No. 78 *Integrated Environmental and Economic Accounting: An Operational Manual*, United Nations discussed about growing pressures on the environment and increasing environmental awareness that have been generated the need to account for the manifold interactions between all sectors of the economy and the environment. The conventional national accounts focus on the measurement of economic performance and growth as reflected in market activity. It also deals with the sustainability of growth and development, the scope and coverage of economic accounting that needs to be broadened to include the use of non-marketed natural assets and losses in income generation resulting from the depletion and degradation of natural capital. The conventional accounts do not apply the commonly used depreciation adjustment for human-made assets to natural assets. Since sustainable development includes economic and environmental dimensions, it is essential that national accounts reflect the use of natural assets in addition to produced capital consumption.

In 2001, The United Nations Division for Sustainable Development (UNSDSD) emphasized their belief that environmental management accounting systems generate information for internal decision making rather than external decision making. This is in line with my statement at the beginning of this article that EMA is a subset of environmental accounting as a whole. The UNSDSD make what became a widely accepted distinction between two types of information: physical information and monetary information. Hence, they broadly defined EMA to be the identification, collection, analysis and use of two types of information for internal decision making: physical information on the use, flows and destinies of energy, water and materials (including wastes) monetary information on environment-related cost, earnings and savings.

**In 2003, The UNSDSD Identified Four Management Accounting Techniques** for the identification and allocation of environmental costs: input/ outflow analysis, flow cost accounting, activity based costing and lifecycle costing. These are referred to later under ‘different methods of accounting for environmental costs’.

**SETAC (The Society of Environmental Toxicology and Chemistry)**: Guidelines were issued by the Society of Environmental Toxicology and Chemistry (SETAC) in 1993, a multi-disciplinary, a code of practice and ethics requires that company which manufactures are required to
take back their products after consumers use. It is also known as Take-back Legislation. It is worth to note that German companies have to collect packaging materials. Some companies like Ciba-Geigy, Church & Dwight and Dow Chemical have adopted Life Cycle Costing technique in health care, pharmaceuticals, agricultural products and chemicals.

**ICMA, India:**“The Cost Accounting Standards on pollution control-14 (CAS-14) was issued by the Cost Accountants of India. This standard gives broad outline on principles and methods of classification, measurement, assignment of costs to product or service and the presentation and more importantly disclosure in cost statements.

**Oracle Environmental Accounting and Reporting** enables organizations to track their greenhouse gas (GHG) emissions and other environmental data against reduction targets. This facilitates environmental reporting under the legalized or voluntary reporting schemes. The Oracle Business Intelligence can provide immediately environmental data to identify and manage CO2 and cost reduction opportunities. It helps organisation to improve ROI. Environmental Accounting and Reporting extends the capabilities of both Oracle’s E-Business Suite Financials and JD Edwards Enterprise One family of applications.

Advantages or Oracle Environmental Accounting and reporting:

1. Increase environmental data collection reliability and efficiency.
2. Comply with Global Greenhouse Gas Regulations
3. It improves environment and financial performance.
4. It integrates with financial accounting solutions to leverage existing business processes and maintain a single source of truth.
5. It brings out accurate, repeatable and verifiable methodologies for greenhouse gas calculations in accordance with global standards.
6. It also supports for multiple reporting standards, shorter reporting cycle times, internal tracking and flexible ad hoc reporting.

The most important accounting standards specifying it and when to recognize (all) liabilities are **IAS F 91 and FAS 5**.

A liability is recognized in the balance sheet when it is possible that an outflow of resources embodying economic benefits will result from the settlement of a present obligation and amount at which the settlement will take place can be measured reliably (IASC 1995-96, [IAS F 91].

**The Canadian Association for Accounting Standards** has issued a special guidelines (Can, 1993, Sec. 3060: 39). If the liability cannot be measured reliably it is a contingent liability which should be disclosed as a note to the financial statement. Special guidelines are issued regarding the provision for environmental liabilities due to contaminated landfills. Provisions should be made for future removal and site restoration costs net of
expected recoveries and charged to income. The accumulated provision should be recorded as a liability.

If goods are sourced from suppliers it has to be certified to be complaint with social and environmental standards such as SA 8000, ISO 14001, OHSAS 18001 or relevant labels like Rainforest Alliance, Rugmark and RSPO.

**NVGS**

The National Voluntary Guidelines on Social, Environmental and Economic Responsibilities of Business(NVGS) notified by Ministry of Corporate Affairs, the Government of India, in July, 2011 with respect to reporting of environmental degradation on Voluntary basis.

**Responsibility Reporting**

SEBI has mandated inclusion of Business Responsibility Report (BRR) for the top 100 listed entities, as a part of the Annual report dated August 13, 2012. The top 100 listed companies are based on Market Capitalisation at BSE and NSE as on March, 2012. It becomes mandatory to furnish the Business Responsibility Report to the Stock Exchange where they are listed and publish the report on their websites. They are expected to follow guidelines and formats provided in SEBI’s Circular. The format has to be adhere to. It is applicable to all companies including finance companies. The Indian subsidiary has to prepare a separate Business Responsibility Report as per SEBI even though multinational holding company prepares report as per Global Reporting Initiative(GRI). If Indian Holding company prepares report as per GRI, the Indian subsidiary is exempted from the Business Responsibility Reporting. Failure to comply with will be construed as non-compliance with clause 55 of Equity Listing Agreement. The reports are can be limited to three products and services on their contribution to company’s turnover. Even cases filed against the company with respect to environmental violation have to be reported.

**Listed Companies in India**

From 2015 onwards 500 listed companies in India has to prepare annual business responsibility reports covering their activities related to environment, According to Securities Exchange Board of India. It has moved from 100 to 500 listed companies in India. The top 500 listed companies are based on their market capitalization at the end of March every year. This is green initiative through annual reports. (The Times of India, Nov.30, 2015)

**Carbon tax:** In order to reduce fossil fuel use in energy resource as per the Kyoto Protocol, the Government of India imposes levy Rs.50 for each metric ton of coal(domestic and imported). This fee is also known as environmental tax or tax on carbon. The amount collected from the fee will
help to create National Clean Energy Fund for financing research and innovative clean energy technologies in India.

**Conclusion**
Change in the pattern of thinking and recording all business related activities whether quantitative or qualitative in nature are to be recorded quantitatively which is not a difficult task in the computerized world, and reported to all stake holders disclosing the quantum of value of environmental degradation by every polluted business or non-business organization. Corporate are facing the challenges to determine their true profits, after considering environmentally sustainable costs. For this, companies have a duty to account for the environment. Environmental costs are social costs. They should take account of its every significant external environmental impacts and in effect, to determine what profit would be left at the disposal of the stakeholders (if any). The current attempt is to leave the planet in the same state at the end of the accounting period as it was in the beginning. More over business entities have social and moral responsibility to make changes in the pattern of disclosure of profits after adjusting economic environmental costs due to pollution that it generates in doing business. Environmental cost adjusted net profit, EPS, ROCE, ROI, Dividend per share has to be disclosed in the financial statements. The appropriated environmental cost from profits are to be used for the social welfare and reduce carbon footprint for the betterment of the society. Government and professional organization can bring out rules and legislation to incorporate environmental adjusted cost to profit and EPS. However, tax is to be imposed on net profit before environmental cost adjustment. Any carbon credit certified can be given tax incentives.

**Reference:**

**Journal**
Guidelines are issued by Ministry of Environment 2002, Japan Environmental Accounting/CSR survey main survey report, October 2009

**Research Articles:**


