Credits trading mechanism for corporate social responsibility: an empirically grounded framework

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Abstract: This paper proposes a framework for assessing credits trading mechanisms for corporate social responsibility (CSR). The motivation to structure this framework derives from contemporary market-based mechanisms of emissions trading (or carbon/credits/offsets) and renewable energy credits (RECs). However, the framework presented herein moves beyond existing forms of credits trading mechanisms that are primarily focused on reducing the environmental footprint of the ongoing industrial/non-industrial activities. By adopting a comprehensive perspective, the paper emphasises simultaneously social sustainability-related considerations and CSR-related activities based on the sale of CSR credits or certificates which bears striking resemblance to the sale of renewable energy credits (RECs) for subsidising the production of renewable energy. This is in direct contrast to emissions trading mechanism in which carbon credits/offsets are purchased by parties who desire to release a corresponding quantity of emissions above the permitted cap. Furthermore, the paper discusses the feasibility of the proposed CSR credits trading mechanism from a broader context of the ongoing climate change crises, political economy and geopolitical circumstances which are known drivers for determining the success of CSR activities by corporation(s) in domestic or overseas locations.

Keywords: credits/certificates trading; corporate social responsibility; CSR; sustainability; social development and technology.


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1 Introduction

A corporate social responsibility (CSR) endeavour(s) in an enterprise (public and private) is to accommodate social, environmental and ethical considerations towards its stakeholders within the business operations and strategic initiatives. Stakeholders include and are not limited to the enterprise’s human resources, end-users, customers, regulatory bodies, suppliers, natural and social ecosystems, distributors, manufacturers, development collaborators, shareholders, remote/distant communities and government(s) (Charter, 1998).

The proposed mechanism of credits trading for CSR endeavours gains its inspiration from the contemporary market-based mechanisms of emissions trading (or carbon/credits/offsets) and renewable energy credits (RECs). On the other hand, as these existing forms of credits trading mechanisms are primarily focused only on reducing the environmental footprint of the ongoing industrial/non-industrial activities. Therefore, the paper lays emphasis on simultaneously addressing social sustainability related considerations and prefers to opt for subsidising or incentivising ‘comprehensive’ CSR related activities via the sale of CSR credits or certificates which bears striking resemblance to the sale of RECs for subsidising the production of renewable energy. This is in direct contrast to emissions trading mechanism in which carbon credits/offsets are purchased by parties who desire to release a corresponding quantity of emissions above the permitted cap.

Furthermore, the paper discusses the feasibility of the proposed CSR credits trading mechanism from a broader context of the ongoing climate change crises, political
economy and geo-political circumstances which are known drivers for determining the success of CSR activities by corporation(s) in domestic or overseas locations.

The underpinnings of contemporary Economic Principles authored by Alfred Marshall which is further founded upon Adam Smith’s Moral Philosophy. In Smith’s advocacy of the ‘Invisible Hand’ which realises the self-regulatory nature of markets, when businesses act in their self interests only in favour of their shareholders. In contrast, Stiglitz (2007) stated that in the era of globalisation where environmental, social and economic externalities of business activities are more systemic in nature, which would eventually lead to a ‘Tragedy of the Commons’ scenario (Hardin, 1968). As a result the ‘home bias’ of the Invisible Hand which mainly accounts for socio-economic considerations is rendered obsolete (Stiglitz, 2007). Moreover, in recent decades the rise in self-centred consumerism and over-commoditisation (as well as commodification) of almost every facet of human civilisation whether natural resources or cultures (Shepherd, 2002). These trends have been well illustrated in the famous 2002 BBC documentary titled ‘Century of Self’ by director Adam Curtis has not only posed ethical questions on their social impacts; nevertheless has also resulted in exploitation of natural and non-renewable resources leading to environmental degradation and further instigating geo-political crises (Parenti, 2011). This aspect has been re-iterated by Mathis Wackernagel and co-workers from The Global Footprint Network that the global ecological stability is the fundamental underlying wealth which upholds other forms of wealth generation activities.

Although nations such as Denmark and institutions such as the Johannesburg Stock Exchange have established laws for CSR, the endeavours are primarily voluntary in nature. For instance, in addition to the standards of social sustainability (SA8000 standard); environmental management (ISO 14000); life cycle analysis (ISO 14043) and economic performance (ISO 9000 family) that remotely encompasses CSR. Moreover, the ISO 26000 only offers guidelines for CSR without any requirements and certification. Similarly, the United Nations has established Triple Bottom Line and Intergovernmental Working Group of Experts on International Standards of Accounting and Reporting (ISAR) guidelines. The major impediment in formulating robust legislations and standardisation norms is owing to the scope of CSR endeavours that encircles a wide spectrum of intricately detailed activities ranging from ecological restoration, employee engagement, community welfare programmes and philanthropic donations. These diverse paradigms entail metrics that are inter-related either by strong or weaker co-relations (for example, impact of releasing toxic emissions on health and income distribution) and hence poses a major impediment in order to specifically outline the CSR endeavours.

CSR has been identified by critics as window dressing and lip service by corporations to project a positive public image. From the critics’ perspective, they essentially referred to businesses of substantial profitability with controversial social impacts, which include but not limited to the tobacco industry, weapons manufacturing, retail giants and processed food industry. Furthermore, businesses have treated the ethical and sustainability facets of commerce as profit limiting in nature, especially in the era of globalisation that mandates regulatory compliances, tariffs, taxes and restrictions (Kercher, 2007). On the other hand, enterprises with long-term competitive strategies outline a more in-depth approach towards CSR to gain long-term stakeholder acceptance in their desired markets. As they are aware that both restrictions and regulations alone, cannot substantially minimise undesired externalities (Porter and Kramer, 2006; Mitchell et al., 2005). Also, Waddock and Graves (1997) pointed out that socially responsible
companies are able to meet their stakeholder requirements before any unprecedented consequences lead to undesired litigation problems and roadblocks in future business operations.

As described by Porter and Kramer (2006) on enterprises focusing towards creating shared value approach that emphasises the significance of human capital, replenishment of resources and efficient government for improvising income distribution as well as wealth generation. Moreover, detailed studies have proved a positive correlation between CSR and the aforementioned outcomes (D’Alessandro and Fanelli, 2009; Tsoutsoura, 2004). For instance, over 40 years Nestle’s CSR endeavours in the Moga region of Northern India lead to the establishment of many local dairies and a substantial growth in milk collection under expert guidance. The outcome was a steady supply of milk as a basic commodity, improved income distribution and overall standard of living for both milk producers and their cattle. Similarly, Gujarat Co-operative Milk Marketing Federation Ltd. is a cooperative which transformed India from a milk deficit nation to one of the largest milk producers in the world and simultaneously generating economic growth from the grass roots level up to the scale of commercial business.

The authors envision that a credits trading mechanism which subsidises the resource (mainly cost) intensive attribute of comprehensive CSR activities would potentially mitigate the problem of its supposed ‘profit limiting’ nature. The objective of the paper is to recommend enterprises, both public and private to venture beyond the ‘Marketing Strategy’ attribute of CSR and look forward for engaging with the society and ecosystem for a long-term sustainable future.

The remainder of the paper would discuss the structuring of the CSR credits trading mechanism after summarising the shortcomings of the contemporary credits trading approaches. This is followed by outlining the research methodology for evaluating the conceptual and pragmatic feasibility through the informal conversational interview approach with experts from Academia and Industry. The comprehensive Section 5 would not only entail the discussion of the impediments that the CSR credits trading mechanism would encounter in terms of evaluation and regulatory frameworks, but also emphasise the historical and philosophical perspectives that underpins CSR related activities, economic theories and the behaviour of corporations and stakeholders. Likewise there is a special focus on non-conventional modes of social development and bottom-up centric approach towards implementing CSR activities. In addition to discussing the crucial role of political economy and climate change related crises which would govern the success and failure of CSR activities, the conclusion would highlight the policy related implications for facilitating mutually beneficial CSR credits trading mechanism for both the project developers and the stakeholders.

2 Shortcomings of carbon offsets and renewable energy certificates trading mechanism

The contemporary credits trading mechanisms pertinent to carbon offsets and renewable energy certificates (REC) are ascertained to have certain limitations, notwithstanding their rate of success which has gradually evolved over the years. As a result, the shortcomings of these existing mechanisms form the basis of defining the CSR credits trading methodology so as to not only overcome the limitation of its predecessors but also to play a complementary role.
A critics’ perspective on emission trading after a thorough analysis on the effectiveness of the Kyoto Protocol and clean development mechanism (CDM) initiative mentioned about participants exploiting loop holes which results in a short term ‘quick fix’ without resolving underlying ecological instabilities caused by post Industrial Revolution anthropogenic metabolism (Smith and Carbon Trade Watch and Transnational Institute, 2007; Owen, 2010; Colwell, 2007). The reason being that project investors and participants have a monetary incentive to ‘overstate’ their claims in order to gain approval. This resulted in the approval of certain non-additional projects, notwithstanding rigorous multi-step evaluations when the CDM initiative was in its early stages. As a result, the visibility of any tangible outcomes with reference to reducing toxic emissions are rendered less effective or even ineffective (Gillenwater and Seres, 2011).

In the previous year, Buen (2013) counters the criticisms of CDM by providing substantial evidence that transaction costs have been significantly lowered and that project scalability is much less of a problem at the moment. Moreover, he has mentioned the shortcomings of the current CDM additionality tests that still do not eliminate projects which are common practice. Also, the changing trends towards sustainability with a commitment towards reduction in emissions has substantially encouraged developing nations for ‘tougher emission reduction targets’. Similarly, excessive rents, perverse incentives and unbalanced regional distribution of CDM benefits have been addressed by new reforms within the CDM rules. Meanwhile, transparency and stronger regulations would counter existing problems associated with sustainability of CDM projects and corruption/fraud.

However, not too long ago in 2011, a meeting was organised by CDM-Watch and Focus on the Global South with participants from Indonesia, Malaysia, Philippines, Thailand, Vietnam, Burma and Cambodia. In the meeting, the participants (including proponents of CDM projects) discussed the core shortcomings of the CDM and Carbon Offset mechanisms with respect to CDM being more of a trading mechanism with less focus on reduction in carbon emissions. Likewise, to discuss the problems pertaining to environmental and social externalities (such as displacement of local populations) for which any robust enforcement mechanisms are not well established (Lang, 2011). In the same year of 2011, many environmental advocacy groups called for the European Union (EU) to ban carbon credits from coal projects in the EU Emissions Trading Scheme in order to counter the flawed rules of certain controversial coal and HFC-23 projects. Likewise, the same groups also requested additional safeguards to disregard credits from CDM projects which lead to human rights abuses (Sierra Club and CDM Watch, 2011).

In addition, the previous chair of the CDM executive board Jonge (2009) explicitly stated about the underpinnings of CDM projects and additionality in his article titled ‘Development of the CDM over time and in the future’ that ‘Additionality has been debated for a long time; some project developers have advocated that any greenhouse gas reduction should be considered additional (environmental additionality). That approach would completely ignore that the CDM, at its best, is a zero sum game, because its credits are used to offset reduction obligations of Annex I countries. After its release, the Additionality Tool was heavily criticized by project developers as being too complex and labor intensive. Yet, in time these complaints
stopped. Though the basic concept of the Additionality Tool seems to be sound, reality has shown that its application can be subject to gaming and manipulation”.

b The CDM initiative and Kyoto Protocol do not explicitly outline any guidelines or measurement standards towards attaining overall socio-economic sustainability. Although the participants have to include a description on the contribution of the project towards overall sustainability. However, in the authors’ opinion it is deemed insufficient as targeting emissions alone does not accomplish climate change and social sustainability related objectives. Because the environmental stability is fundamental to the social and economic dynamics of our civilisation; primarily due to its fractal-based complex adaptive system that governs the functioning of our bio-geochemical cycles (such as water and oxygen cycles) and other supportive ecological systems which are intricately connected and contain multiple feedback loops within each other (Costanza et al., 1993). Global scale industrial activity has induced instabilities in our ecosystem that needs to be restored to its former carrying capacity and re-instate the effectiveness of its sink function in order to sustain the current human population and neutralise the toxicity of industrial/non-industrial waste (Costanza et al., 1998; Parenti, 2011). Therefore, the environmental damage actualised by one ton of toxic emission cannot be undone by reducing another ton of toxic emission elsewhere, unless the damage is rectified which probably would require the utilisation of additional material/financial resources (which could lead to and its own environmental impacts). Nevertheless, in certain circumstances even after investing considerable resources for ecological restoration; some of the ecological functions could not be restored to their initial degree of functionality (Hansen, 2009).

To add further, it is the inability of the existing market oriented economics to accommodate the complex characteristic of our ecosystem (Jackson and Dyson, 2012). Therefore, the attempt to mitigate undesired climate change catastrophes via market-based mechanisms of emissions trading and REC alone is not holistic in nature, although it is a commendable initiative in the direction towards a more sustainable economy.

c Despite the ongoing efforts by the Kyoto Protocol and CDM initiative, it is challenging to define baseline scenarios with reference to the regulatory frameworks of the host nation for determining additionality of a carbon offset or an environmentally friendly project. As a result, participating entities (such as private for/non-profit institutions) and the governments may not perceive any incentive to implement stringent regulations for maintaining ecological stability. Moreover, the nations of the participating enterprises might possess other barriers which impede in defining alternative baseline scenarios, which are either related to geography, government policies, regulations, market structure, investment scenario, basic/advanced infrastructure, expertise to develop robust technologies and negotiate mutually beneficial agreements. Moreover, the risk of ‘leakage’ can occur outside a project which may directly or indirectly result no net reduction of emissions. Similarly, there is a substantial risk of permanence; wherein the emission reductions could be reversed and thus, requiring strict vigilance and robust technological prowess to prevent such undesired incidents (Gillenwater and Seres, 2011).
The market-based approach towards emissions reduction although has actualised a certain degree of success, nevertheless CDM participants from developed nations have preferred to select host nations where they identify significant emission reductions with lowest costs (such as China and India) (Gillenwater and Seres, 2011). As notwithstanding the status of developing nations pertaining to India and China; investors and collaborators have ascertained the presence of significant technological prowess in quality of human resources and research and development (R&D) capabilities in both public and private institutions (Coco and Archibugi, 2004). This can be termed as picking up the ‘lowest hanging fruit’ by implementing projects which are lowest in their cost of installation and operation, such as energy efficiency projects as opposed to large scale emission reduction or even ecological restoration projects. This would probably dis-incentivise new R&D for implementing better technologies to counter undesired outcomes of climate change. It is crucial to acknowledge that most of the governments in poor developing nations have committed their policies more towards long-term economic growth which may be obstructed by binding emission caps and CDM projects with their respective transaction costs (Kua, 2009; Gunawansa, 2009). As a result, the ecological instabilities are resolved marginally as well as bypassing the poorest of the developing nations (such as Haiti) who lack the basic infrastructure for establishing CDM project and who are also the worst affected by climate change (Parenti, 2011). Furthermore, there does exist a perverse incentive to create more emissions and then destroy them in order to gain credits. Similarly, participants can devise industrial processes which are polluting in nature and later re-invent them to demonstrate to the regulatory authorities and CDM auditors that substantial emission reductions have been attained for issuing more credits. In certain cases, participants can ‘lobby’ with the regulatory agencies for outlining industrial process with lower environmental safety standards to claim additionality for inadequate improvements within their business process.

d Negative social impacts: as pointed out by the Global Alliance for Incinerator Alternatives (2011) that incentives and issuing of credits for private enterprises engaging in CDM projects does exclude the informal and local (even rural) sustainability activities, which includes recycling and sustainable agriculture that eventually contributes to reduction in greenhouse gases and environmental stability. On the other hand, a CSR credits trading mechanism would have ‘encouraged’ participants of CSR activities to collaborate with local stakeholders who engage in such informal waste collection/recycling activities and to provide them with opportunities for a stable livelihood as well as gain access to feedstock material for subsequent industrial activity. Moreover, due to lack of basic infrastructure (such as water and electricity) within the host developing nation, as a result they are unable to adhere to the most stringent regulations for a mutually beneficial CDM programme. Thus, resulting in a ‘moral hazard’ scenario wherein the participating parties are well compensated through the Kyoto Protocol and CDM initiative, while the stakeholders are left with little or no benefit (Colwell, 2007).

As outlined in the current and previous sections that CSR endeavours are well acknowledge in terms of government regulations and standards. On the other hand, their voluntary nature provides considerable flexibility for participants to implement mutually beneficial projects which are not only complementary to existing credits trading
mechanisms but would also mitigate or obviate their undesired social externalities. This aforementioned paradigm would be discussed in detail in the subsequent sections.

3 CSR and the credits trading approach

3.1 Structuring the scope of CSR

In early 2010, the former Corporate Affairs Minister of the Indian Government, Mr. Salman Khurshid discussed the importance of quantifying CSR initiatives to enable a credits trading approach (Jayaram and Thapar, 2010).

Therefore, as outlined in Figures 1 and 2, the corporate leadership needs to devise consistent strategies in collaboration with its partners and the government(s) political willingness to address overall stakeholder welfare. The stated approach as a part of corporate strategy would ensure faster response towards dynamically changing market requirements and uncertainties pertaining to business operations.

Figure 1 CSR of an enterprise and the stakeholders

Class 1 Corporate Social Responsibility (Applicable for issuing credits/certificates):
- Sustainable Business Practices that contribute to socio-economic growth and ecological stability.
- Forming partnerships with Government(s), Non-Profit Entities and Non-Governmental Organizations via engagement with stakeholders in order to build and improve infrastructure, Healthcare facilities and services, vocational training and education, housing and utility services, communication.
- The endeavors promoting and maintaining Ecological Integrity should include and are not limited to the implementation of robust technologies for stabilizing bio-geochemical cycles.

For example: Carbon Capture and Utilization, Large scale Industrial Ecology and Ecological Restoration Programs, Waste Treatment throughout Life Cycle.

Class 2: Universities, Private Enterprises, Governments, Public Institutions, Individuals, Non-Profits
Outcome: Creation of new knowledge, growth in quality/quantity of human capital, ecological stability, improvement in income distribution and employment statistics, easier access to natural and renewable resources, long term strategic and competitive advantage coupled with enhanced reputation.

- Risk Management via Regulatory Compliance for Safety and Welfare of Stakeholders
- Adherence to Human Rights (Universal Declaration of Human Rights) and Acknowledgement for Democratic framework of the Host nation.
- Tangible contribution towards a Nation’s Social and Economic Rights Fulfillment Index.
- Access to information and transparency between Enterprise and Stakeholders.
- Engaging and rewarding employees for in devising sustainable business practices.
- Avoiding participation or supporting any form of Genocide, including cultural.
- For example: United Nations Declaration on the Rights of Indigenous Peoples
- Upholding the Ethics for the Freedom of Press

Class 3: Philanthropy and Medium Scale Community Welfare Programs

The framework outlined in Figure 2 categorises the ambiguous nature of CSR into three distinct classes (Srivastava, 2013). While class 3 is designated at the lowermost level, the enterprises subscribing to class 2 measures are recommended to adopt lean manufacturing processes to reduce wastage, establish waste treatment facilities and re-design products to be more eco-friendly by incorporating refurbishment, recycling and remanufacturing opportunities. These approaches are known to deliver better response to market opportunities and building a larger base of skilled employees, both the domestically and overseas (Fishman, 2012). Accordingly, decreasing the dependency on imports which in itself consumes enormous non-renewable fuels, such as petroleum solely for transportation.

3.2 The credits trading approach for CSR endeavours

Acknowledging the limitations of contemporary credits trading mechanisms, the government and the project participants comprising of private for profit/non-profits need to implement more comprehensive projects that broadly encompass a wide range of sustainability considerations which are possible primarily via class 1 CSR activities. However, as such endeavours mentioned in class 1, such as carbon capture and utilisation that transforms toxic carbon-based emissions into economically useful products namely renewable fuels and plastics (Styring and Jansen, 2011) of Figure 2 requires stringent regulations and are both knowledge and cost-intensive in nature, thus deterring potential investors. Similar impediments are encountered within CDM and renewable energy projects. Therefore, the authors recommend a credits trading mechanism towards ‘only’ class 1 CSR activities in which participants can issue credits or certificates to be sold to suitable purchasers. The stated credits trading mechanism is inspired from frameworks used in REC and emissions trading of carbon credits/certified emission reductions (CERs) (Gillenwater and Seres, 2011; US Department of Energy et al., 2010).

The authors intend to clarify that the proposed CSR credits trading mechanism is devised to alleviate the cost-intensive nature by providing a subsidy for both development and implementation of class 1 activities. Therefore, unlike its emissions trading counterpart an enterprise cannot purchase a CSR certificate(s) to offset its activities which are unsustainable from a socio-economic and environmental standpoint. For instance, a retail food store cannot be allowed to purchase CSR certificates to offset the maltreatment and poor working conditions of its employees. If it intends to purchase or
even sell CSR certificates it must primarily and compulsorily adhere to class 2 CSR activities. Concurrently, for an enterprise to participate in class 1 measures it is imperative to adhere to class 2 measures as well.

Moreover, the authors have structured the CSR endeavours into three distinct classes and positioned ‘cheque book’ philanthropy in the lowest level as financial compensation or donation towards society does not necessarily lead to a more sustainable future. For instance, donating to an orphanage for feeding young children would not necessarily impart necessary skills and empower them to have successful careers. Nevertheless, the Enterprise can invest the equivalent monetary resources for purchasing CSR certificates from another enterprise that engages in class 1 activities and benefit from the realised outcomes as envisioned in the sellers’ class 1 CSR initiatives in Figure 2.

The emissions trading and REC are quantified on the basis units that denote reduction in 1 ton of carbon dioxide and 1 megawatt hour of electricity generated from renewable sources, respectively. In contrast to these two mechanisms, the credits issued from the class 1 CSR activities which are considered tradable in this paper are evaluated by a diverse set indices and measurement units (for example, Exergy Efficiency for Industrial Ecology and Gini Coefficient for Income Distribution).

Consequently, the authors propose evaluation of a CSR certificate on similar lines of evaluating a stock price (Conte et al., 2001). As the evaluation of the price of a stock entails a wide spectrum of considerations and hence bears resemblance to CSR activities which are broad in scope with the indices and measurement units considered to be evaluated. Similarly, at this moment the authors are not precisely certain whether novel financing approaches used in REC and green power programmes such as long-term fixed price contracts, price hedging via long-term contracts, feed-in-tariff, peer-to-peer (P2P) lending and solar power purchase agreement (SPPA) can be considered for mitigating the resource intensive nature of class 1 measures (US Department of Energy et al., 2010; Branker et al., 2011). This facet would be explored as a part of the future research. As the tangible benefits of renewable energy directly go to the financers or electricity purchasers (which are stakeholders as well) which may not be in the case of the purchasers who buy CSR certificates from class 1 project developers. For instance, a water treatment facility for local farmers in a rural region where a corporation is engaged in mining activity may not directly benefit a university in a developed nation that has purchased a certain number of CSR credits/certificates. This facet would be discussed in Section 5.5.

In order to implement a credits trading mechanism for class 1 CSR projects, the participants should outline the following details (Agarwal, 2010):

- role and benefits to every involved stakeholder
- structure of the relationships between the participating enterprise and stakeholders
- framework of the business model, financing structure of the business model, the social capital that needs to be addressed, role of government and infrastructure
- evaluation metrics and parameters which are acceptable to project developer(s), enterprises and stakeholders.

During the evaluation of a CSR certificate, the evaluators must include the financial performance of the enterprise and its capability to successfully implement the stated class
1 CSR project(s) and adherence to class 2 CSR activities as well. The analyses should also utilise the evaluation methodologies outlined in thermoeconomics ecological economics, cost benefit analysis and social accountability (Costanza et al., 1998; Valero et al., 2010; Xepapadeas, 2008). As these evaluation methods deliver a detailed insight into the combined financial, energy-material consumption and environmental dynamics related facets to steer the projects in the desired direction. For instance, ecological economics which co-relates the dynamics of economic activity with its interdependency on the ecosystem. Such analytical techniques establish a common ground between environmentalists and business managers to define the parameters of the class 1 CSR project(s) under consideration.

The price of a CSR certificate would be determined by the following paradigms:

- supply and demand of the certificates
- the investments in the development and implementation of the projects concerning class 1 measures
- the scope of ecological stability and anticipated positive socio-economic outcomes (as stated in class 1 of Figure 2) envisioned by the project developers.
- the accomplishment of the envisioned outcomes with respect to ecological and socioeconomic sustainability
- Efficiency of the class 1 projects and the tangibility of the stated outcomes would also induce fluctuation of the certificate prices.

Such a pricing approach would ensure that enterprises are under strict vigilance to encourage adherence to regulatory norms (stated in class 2) and also be accountable to the pertinent stakeholders mainly because they have an incentive to perform in the best interests of their stakeholders by virtue of monetary compensation associated with the sales price of the CSR certificates and the prospective long-term competitive advantage. Thus mitigating the stated disadvantage of additionality in Section 2 which could occur while issuing CERs within a CDM projects concerning the pre-existing stringent regulatory requirements (Gillenwater and Seres, 2011).

Furthermore, Ihugha (2012) discussed the positive outcome of compulsory regulation of CSR of projects which are capable of exerting detrimental social and environmental externalities. The research was pertaining to the oil and gas industry in Nigeria; wherein the Nigerian Government enacted the Nigerian Extractive Industries Transparency Initiative (NEITI) on similar lines of the Global Extractive Industries Transparency Initiative. Despite barely attaining the desired level of stakeholder involvement that eventually undermines transparency and accountability. The NEITI audit reports were accessible for public scrutiny even if it was available only to experts in oil and gas industry.

This case in point exemplifies the need of independent accredited auditors, empowered stakeholders whose rights are protected against any form of intimidation by project developers for which the implementation of robust legislations and enforcement mechanisms are crucial. It is also essential that both the enterprise and its stakeholders adhere to a coherent and streamlined decision making process.
3.3 Parties permitted to purchase CSR certificates: central and state governments, universities, businesses, non-profit organisations and individual consumers

Through the purchase of these certificates these organisations contribute to overall sustainability which benefits local and global communities, owing to the ubiquitous nature of our ecosystem while they adhere to class 2 activities (US Department of Energy et al., 2010). Likewise, individuals and communities can also provide their expertise for the implementation and monitoring of class 1 CSR projects in the form of P2P-based interaction and open reasoning collaborations which allow voluntary participation to build solutions for addressing a use-value that has a positive social objective as opposed to market value in exchange for commercial interests (Bauwens, 2006).

3.4 Advantages of participating in the trading of CSR certificates

Stakeholders who actively participate in CSR activities whether class 1 or class 2 would eventually benefit from the positive social and economic outcomes enumerated as follows:

a Improvised stability of ecosystem and reduced utilisation of non-renewable natural resources. This results in lower disruptions of non-renewable fuel supply and volatility of essential commodities obtained directly from mining (for example, rare earth metals for electronics) and derivatives of mined commodities (For example: plastics manufactured from petroleum) (Castelli, 2008). Furthermore, the ecosystem stability and re-circulation of natural resources such as water is critical to uphold national security for the participating nations and their public/private institutions (Gies, 2012).

b Demonstration of leadership in corporate citizenship which contributes to positive publicity and boosting the morale of employees.

c Improved prospects to subsidise costs of commercialising sustainable products/services which would ensure that they are equally competitive in comparison to less sustainable options available to customers. Moreover, participating enterprises can frame a mutually beneficial profit sharing model amongst themselves.

It is essential for prospective industrial participants to acknowledge the Pareto optimal frontier that they would encounter while developing products/services with a higher degree of sustainability. The frontier illustrates that one parameter cannot be improved without worsening the other. Moreover, the frontier in terms of products/services is defined by the attributes of natural and synthesised resources used; limitations pertaining to the participants’ technological capabilities and competencies; access to the desired quality of human/financial resources. For instance, the incorporation of a ecofriendly material could be expensive if the company is facing a budget crises and it may be unable to modify its production process to accommodate the material. Likewise, the frontier could be encountered while planning for a class 1 CSR project as well.
The class 1 measures not only encourage product and technology innovation, but the implementation would contribute to local and international employment growth. Thus, contributing to the tax revenue and disposable income, essential for the continuity of a healthy economy (D’Alessandro and Fanelli, 2009; Fishman, 2012; Tsoutsoura, 2004).

The participating enterprises and the governments (developed and developing nations) primarily need to evaluate the scope of the class 1 measures in accordance with stakeholders prior to commencing any form of project planning or technology development. For example, although the fundamental R&D for carbon capture and utilisation has been carried out by researchers around the world (Styring and Jansen, 2011), nonetheless, a robust technology needs to be established for a certain scale of operation as deemed feasible to attain the class 1 measures outlined by the participating enterprises.

3.5 Access to resources and opportunities

The projects to address class 1 measures are resource-intensive and accordingly should stimulate R&D between research institutions within academia and public/private institutions for generating robust industry standard technologies. The participating governments could offer certain financial incentives and subsidies in the form of rebates, competitive solicitations, consumer financing, easier access to credit from public/private financial institutions and tax benefits (US Agency for International Development, 2011).

A remarkable example is observed in the case of Sierra Nevada Brewing Company. The project entailed a fuel cell system with solar panels. The endeavour received around 2/3rd financial support from the local utility company, Pacific Gas and Electric, US Department of Defense Climate Change Fuel Cell Programme and 30% Federal Investment Tax Credit (US Department of Energy et al., 2010).

3.6 CSR as a sub-category of the clean development mechanism in the Kyoto Protocol

The authors recommend that the credits trading approach of corporate social responsibility should commence as a CSR certificate trading initiative under the CDM executive board of the Kyoto Protocol and United Nations framework on climate change. It is well known that the contemporary flexible mechanisms, especially CDM as outlined by the Kyoto Protocol are the only robust and multifaceted structure to deal with climate change at a global scale (Gunawansa and Kua, 2011). The authors’ recommendation is founded upon the comprehensive experience and learning curve of the involved institutions within their own initiatives in addition to their globally recognised credibility.

Firstly, a majority of the class 1 CSR Projects are directly associated with ecological stability which bear certain resemblance with the emission reduction CDM projects. Although class 1 CSR activities are more comprehensive in their scope, while CDM projects are more catered towards emission reductions. Moreover, the aforementioned global institutions have devised rigorous and effective auditing procedures which have been continuously evolving in order to reduce any form of subjectivity induced by the
applicants and reviewers. This has resulted in improved efficiency and increase in certainty of return on investments (Buen, 2013; Gillenwater and Seres, 2011).

Secondly, the knowledge curve pertaining to project finance, monitoring and assessment would enable the CSR credits trading mechanism to evolve in a shorter time period. The members of the CSR certificate trading initiative under the CDM executive board would be in a better position to translate the exhaustive knowledge from other regulatory agencies such as Food and Drug Administration (FDA) and International Organization for Standardization (ISO) authorities on the methodologies for validating various industrial activities that range from stakeholder centric development, manufacturing, supply chain and operational processes. This strategy would strengthen the CSR certificate trading initiative to effectively monitor the progress of the projects.

The enterprise(s) or project developers should be permitted to present their analyses on the baseline and sustainability related outcomes which would be further subjected to public review by people (and stakeholders).

Similar to the emissions trading mechanism a baseline scenario for social, economic and ecological sustainability would have to be defined on the basis of the current circumstances at the location(s) of the class 1 project(s). This would be followed by defining the scope of project(s) with respect to the enterprise, its Stakeholders and contribution towards overall sustainability which would also determine the price of the CSR certificates issued by the enterprise(s) after approval from the CDM executive board. The certificates can be obtained from marketers, the participating Enterprises and brokers (Figure 3). The authors recognise that as each domain of sustainability entails their own metrics which are interrelated as well as diverse. Nonetheless, this should not be a deterrent and care has to be taken to prevent any form of analyses paralyses. The authors also recommend gradual modifications in the baseline scenarios of the overall sustainability so as to incentivise the project participants without jeopardising the ecosystem, simultaneously.

The CSR certificate trading initiative would also have to collaborate with the International Labor Organization (ILO) and United Nations’ Social Sustainability Initiative for addressing the social sustainability paradigm of the CSR projects. The justification for such a collaboration is rooted in the fact that the ILO is able to exert its influence for structuring cooperation between governments, private enterprises, non-profits and non-governmental organisations (NGOs) in order to establish the highest standards of compliance with The Universal Declaration of Human Rights. The ILO has substantial experience in training local monitors and ensuring a high degree of transparency between various stakeholders (Skibola, 2010a, 2010b).

The role of the ILO can be extended to devise guidelines for aiding enterprises to incorporate training programmes for their employees and managers to become competitive and stay abreast with current technological advancements that are required to be less dependent on non-renewable resources. For instance, training heavy equipment operators who have used machinery in mining activities to re-inventing their skills for building solar and wind farms.
It is essential that the participating governments and international bodies adhere to the highest form of ethical and moral standards while conceptualising and implementing their initiatives. Moreover, the ILOs initiatives could face resistance by antigovernment local/international groups or even by the government which loosely adheres to
democratic principles. On the other hand, in economic partnership between developed and developing nations; a strong influential developed nation with significant prowess in technology advancements and political clout could intimidate the government of a developing nation for an economic advantage. This would constitute as ‘rent seeking’ via ‘resources and information asymmetry’ (Klein, 2007). Similarly, the companies engaging in class 1 CSR activities for which credits would be issued to subsidise (or compensated) their investments and efforts should not exercise any form of ownership onto natural resources or unfairly allure/intimidate the stakeholders who benefit from their CSR activities. For instance, a CSR class 1 project which entails the restoration of a certain ecosystem or even harvesting rainwater for promoting local agriculture should not permit the corporations engaging in the class 1 CSR activity to exercise ownership of the natural resources. Similarly, a low cost housing complex for low income families should not be used as a factor to intimidate the tenants/home owners and their relatives, as the Class 1 project is being subsidised by the credits trading mechanism and presumably the tenants/home owners would be paying their rent/mortgage. This is similar but not identical to the payments for ecosystem services (PES) in which the party providing the eco-system services holds the property rights and not the party which demands the eco-system service via the payment of a certain fee (Tacconi, 2012).

These international partnerships between nations and their enterprises can be considered as ‘going global and being local’ which contributes to local economies of the partner developing nation. Participating enterprises and their governments in both developed and developing nations should devise regulatory frameworks and legislative structures to promote effective transfer of technology for class 1 CSR measures with minimal opportunities for conflicts pertaining to ownership of Intellectual Property Rights without stifling future innovations.

A developing nation in its own best interests may favour projects proposed by their own domestic enterprises for class 1 CSR activities until they are equally competitive with their foreign counterparts. Moreover, in some cases governments who have substantial control of institutions and industries capable of participating in class 1 CSR measures may use the General Agreement on Trade in Services (GATS) Monopoly exception which does not compel domestic service monopolies to permit competition from foreign parties (Wiser, 2002). Thus, delaying the nations’ economic and knowledge growth curve by deterring potential investors and collaborations that would have provided access to sophisticated technology (Werksman et al., 2001).

Technologies that are critical components for class 1 CSR activities sometimes are available within enterprises from developed nations by virtue of lengthy and cost intensive R&D cycles. Therefore, the credits trading mechanism, in addition to the subsidies and R&D partnerships between the enterprises and government organisations is anticipated to discourage or minimise the occurrence of ‘rent seeking’ scenarios for gaining a faster return on investment which would have happened otherwise in a privately developed technology (Sipila, 1999). Furthermore, the participating entities (enterprises and governments) need to promote education and awareness about sustainable behaviour amongst citizens and share information on their climate change programmes.

On similar lines of the emissions trading scheme in the EU, the CSR certificate trading initiatives under the CDM should honour the sovereignty of the nations of participating enterprises by providing the guidelines for enterprises and their participating
nations to follow and permit a de-centralised decision making approach between their governments (Kruger et al., 2007).

3.7 Trading CSR certificates on an exchange platform

Emissions trading is carried out in a carbon trade exchange, nonetheless for CSR certificates would absorb time to prove its validity and volume before being traded in a carbon trade exchange or a newly assigned sustainability trade exchange. Accordingly, public/private enterprises, educational institutions, CSR certificate suppliers, non-profit and NGOs can establish a non-profit association to implement a CSR certificate trading system for enabling international trade of CSR certificates between signatory countries that are represented by the institutions in the aforementioned non-profit association. The proposed approach is inspired by the European Energy Certificate System for RECs. Furthermore, these certificates can also be traded in the futures market similar to the renewable energy certificate (REC) futures in the Australian Stock Exchange.

3.8 Tax benefits v/s credits trading approach for CSR

Similar to the debate between carbon tax and carbon credits, the authors acknowledge the potential debate pertaining to the approach to either providing tax benefits to enterprises engaging in CSR as opposed to CSR certificate trading. Proponents of carbon tax have identified that there are lower probabilities of unfair manipulation of taxes as compared to carbon credits, which might as well hold true even for CSR certificates (Baumert, 1998). Moreover, in the authors’ opinion the governments and regulatory agencies of developing nations may not possess the required level of expertise to comprehensively audit the authenticity of an enterprises’ CSR measures for receiving tax benefits. Meanwhile, CSR certificate trading provides a lucrative market which promotes increase in growth and innovation by both Enterprises and their stakeholders.

Furthermore, the initial phase of technology development and implementation for class 1 CSR activities would incur substantial capital costs which can be alleviated by the cash flows generated via fair price certificate trading. On the other hand, the REC (REC) method only provides the subsidy (via certificate sales) after the installation of a functional renewable energy source.

In addition, the authors’ proposal of an effective CSR credits trading mechanism is to be considered as complementary in nature to the ongoing REC trading, carbon taxes and emissions trading activities. For instance, the technology of carbon capture and utilisation which transforms industrial emissions via bioprocesses into renewable fuels and plastics (Styring and Jansen, 2011). Therefore, from the viewpoint of existing credits trading mechanisms and the proposed CSR mechanism could be accommodated in terms of reduction in emissions (i.e., carbon offsets), renewable fuels (i.e., REC) and the increase in employment and contribution to local economy with respect to Class 1 CSR activities.

4 Research methodology

The underpinnings of the proposed CSR credits trading mechanism was initially subjected to evaluation by the authors through an extensive literature review which comprised of newsletters, peer reviewed published research papers, book chapters and
technical articles written in renowned magazines. Moreover, the entire Section 5 is dedicated to the discussion of the pragmatic feasibility of the CSR credits trading mechanism in accordance with literature review and interviews as guided by the experts who were consulted and interviewed as well.

The literature review was followed by an ‘Informal conversational Interview’ approach with experts from Industry, Academia and Intellectuals from the public sphere by e-mailing a 15 slide presentation which contained relevant text to explain the CSR credits trading mechanism and Figures 1, 2 and 3. The stated interview approach provided substantial freedom without digressing from the scope of evaluating the trading mechanism and hence was considered by the experts to be more effective than a questionnaire or a closed quantitative interview approach (Patton, 1990). The responses were collected by e-mail and further confirmed by long distance phone conversations to record more responses in the form of short notes. The responses have been articulated in Section 5.7 with the critique and potential positive outcomes of the credits trading mechanism have been discussed in the preceding sub-sections. In addition, pertinent responses from the interviewed experts have been included throughout all the subsections of Section 5 as well.

The justification to opt for an ‘informal conversational interview’ is mainly because the experts possessed substantial knowledge in the domain of sustainability, economics, finance, political sciences and the contemporary credits trading mechanisms in carbon offsets and renewable energy. Moreover, instead of directly opting for a case study approach of implementing a CSR credits trading activity for a certain class 1 CSR project; the expert feedback was deemed sufficient enough by the authors and the experts themselves to ascertain the pragmatic feasibility (and challenges) owing to their comprehensive experience and insight across diverse disciplines and geographical locations. And accordingly, the experts recommended the authors to explore the case study approach in the near future.

Prior to the ‘informal conversational interviews’, a preliminary discussion with a few key experts was conducted and these key experts provided additional guidance on conducting the informal interviews with additional experts (Patton, 1990). The key experts recommended the first author to explore (and contemplate) the feasibility of the CSR credits trading mechanism with reference to the following facets firstly via literature review which was later followed by the informal conversational interviews with both the key experts and the additional experts:

1. The feasibility of the CSR credits trading mechanism with reference to various regulations and socio-economic circumstances of stakeholders and prospective certificate purchasers.

2. The role of domestic and international policies which could impede or in certain cases render obsolete the class 1 CSR projects and the corresponding credits trading mechanism. Likewise, the potential challenges that corporations could encounter with reference to the political economy (as well as socio-economic circumstances) at both domestic and international levels.

3. The co-relation of CSR related activities, industrial growth and ecological stability to determine the long-term viability of the CSR credits trading mechanism.
4 The co-relation of CSR credits trading mechanism with a corporation’s business and innovation strategies, financial evaluation methods and the potential impact on the socio-political economy in general. Likewise, new forms of social development mechanisms which could render CSR activities less effective and even obsolete such as social hacking initiatives and local cooperatives which empower local stakeholders to boost the local economies.

The literature review conducted under the guidance of the key experts enabled the first author to effectively conduct the informal conversational interviews. The sole purpose of evaluating the CSR credits trading mechanism from such diversified perspectives was considered crucial due to the ongoing socio-economic, political and ecological circumstances such as financial debt, climate change and political crises to name a few that could dramatically impede any class 1 CSR endeavour (Parenti, 2011).

Concurrently, while comprehending the CSR credits trading mechanism as per the aforementioned facets the following propositions pertaining to proposed CSR credits trading mechanism were also validated:

1 The CSR credits trading mechanism entails the investment by stakeholders on activities which although benefit the society but concurrently also perpetuate the economic growth of the participating corporation. Therefore, the stated mechanism could pose a considerable moral hazard to the stakeholders as the cost savings from the sales of the class 1 CSR certificates could be misused by the corporations for further inappropriate ‘rent seeking’.

2 The CSR credits trading mechanism is to be established under the clean development mechanism of the Kyoto Protocol due to the existence of a robust regulatory framework and evaluation methodologies.

3 Class 1 CSR projects and their corresponding credits trading mechanism should be implemented with a strong focus on the stakeholders’ circumstances and considerations from a bottom-up approach so as to bring about a higher degree of self-reliance within the region under consideration.

Furthermore, the informal conversational interviews with the key and additional experts were centred on these aforementioned propositions. Consequently, the literature review with reference to the aforementioned facets and the propositions enabled the authors to engage in critical analyses of the responses obtained from the interviews in order to determine the practical feasibility of the proposed CSR credits trading mechanism.

5 Discussion of the feasibility and prospective challenges for implementing the CSR credits trading mechanism

The extensive literature review as recommended by the key experts who were consulted (and interviewed as well) revealed that certain potential challenges which are not only specific to the proposed CSR credits trading mechanism but could even be extended to existing credits trading mechanism. Moreover, all the sub-sections outline the challenges that were ascertained from literature review except for Section 5.6 which discusses in
detail the responses from the key and additional experts as per the ‘informal conversational interview’ method (Patton, 1990).

5.1 Impediments encountered due to exhaustive evaluations and stringent regulations

As Skibola (2010b) outlined that devising a credits trading mechanism for any CSR activity would result in implementing vague and ambiguous guidelines for monitoring and evaluation that are bound to undergo repeated revisions and contribute to the transaction costs of the envisioned CSR project. Thus, diminishing its viability and possibly undermining any prospective success in terms of tangible outcomes pertaining to overall sustainability (Chadwick, 2006). The critics of CSR activities have also pointed out that even in the presence of stringent regulations and vigilance over an Enterprises’ operational activities. It is arduous for the regulatory agencies to monitor every aspect of each business process and operation.

Keeping in mind the statement made by Jonge (2009), the former chair of CDM executive board, the experts re-affirmed that even CSR credits trading mechanism can be prone to manipulation in terms of the additionality and baseline requirements. Accordingly, there is a probability that policy makers, regulators and participating public/private would adjust the requirements of additionality and baseline scenarios for the valuation of CSR certificates. As a result, there would be an accumulation of ecological debt which be catastrophic in nature and CSR certificates would still continued to be traded profitably (Srinivasan et al., 2008). This not only confirms the first proposition of Section 4 but also contradicts the very purpose of the CSR credits trading mechanism and unlike a financial debt ceiling, the ecological debt seems to be non-negotiable (Elliot, 2013).

Moreover, loopholes and grey debatable areas in legislation have always lead to cumbersome legal proceedings (Sacconi, 2004). For example, the failure of general electric to clean the contamination of Hudson River by their organic pollutant effluents was a result of lengthy legal proceedings for assigning liabilities between involved parties (Sullivan and Schiafo, 2005). The authors state that there is a substantial likelihood of similar scenarios leading to a harmful status quo to the stakeholders, unless there is a legal framework is established for both public and private enterprises to engage in ‘more responsible behaviour’ which is also critical for their own long-term competitive advantage.

It is obvious that the CSR credits trading mechanism would encounter similar incompatibilities with international trade agreements as carbon credits because the CSR credits as recommended by the authors to be included the under the CDM executive board (mentioned in the second proposition). On one hand the international investment agreements (IIAs), GATS (Article 17 and 2) and WTO General Agreement on Tariff and Trade (GATT) promote non-discrimination between nations participating in free trade (Werksman, 1999). However, the founding principle of Kyoto Protocol that defines the CDM does engage in a certain type of discriminatory approach towards nations based on their economic development and adherence to emission standards (Gunawansa and Kua, 2011).

Therefore, from a CDM perspective, a host nation (a non-Appendix developing nation) could discriminate an enterprise from a nation which has not acceded to the Kyoto Protocol. Similar discrimination could be encountered between prospective
collaborators from WTO and non-WTO nations, even if they have acceded to the Kyoto Protocol. Accordingly, as pointed out by Voigt (2009) that such form of discrimination by virtue of administrative action, laws and regulatory frameworks are in conflict with the aforementioned free trade agreements (Gunawansa and Kua, 2011).

Similar to CERs even the CSR certificates may not be classified as goods and services under WTO (Wiser, 2002). Also, enterprises (or other purchasers) from Appendix nations of the Kyoto Protocol may not prefer to purchase CSR certificates from enterprises of non-Appendix nations probably on the basis of political affiliations/ideologies and geographical preferences. Similarly, even enterprises from non-Appendix nations would prefer certain Appendix developed nations owing to their various geopolitical collaborative arrangements (Klein, 2007).

5.2 A historical perspective of mainstream economics, technological innovation and accounting practices in defining sustainability

The objective of incorporating sustainability within any business or non-commercial activity begins with some form of financial analysis to ascertain the costs and advantages. However, in addition to the complexity of the ecosystem and the non-measurable aspects of social sustainability (such as happiness and social justice) which makes the assessment quite challenging; every participant of classes 1 or 2 CSR project needs to acknowledge some of the primary factors for the detrimental social and environmental externalities that originates from our industrialised society.

Although excessive consumerism and the sole focus of businesses to satisfy their shareholders instead of stakeholders are blamed to be the culprit; nevertheless, the authors and interviewed experts desire to illustrate the inability of any institution (public/private) to account for socio-economic considerations and environmental stability within the contemporary accounting practices could be based on their ideological foundations of the economics (and economic policy) and accounting practices devised within the developed western nations in the 18th and 19th century (Jackson and Dyson, 2012). The introductory section already pointed out the limited scope of authenticity and the invalidity of Adam Smith’s Invisible Hand in our globalised economy as stated by Stiglitz (2007). Because such theoretical deficiencies by itself would lead to socially and environmentally detrimental business practices in the name of economic growth. Thus, justifying the very need for a CSR-based endeavours.

In addition, Caitlin Rosenthal, an Harvard-Newcomen Fellow in business history at Harvard Business School while studying the history of business practices stumbled upon detailed records of accounting methods to compute the productivity and the depreciation of slave labour in the plantations during the 18th century in the USA (Johnston, 2013). The records revealed that the slave owners who were not directly supervising day-to-day operations always accounted for their slaves as ‘human capital’ as assets instead of human beings in their accounting books. She also points out that these accounting practices later evolved into their contemporary counterparts during the industrial era and the railroad era. For instance, collective penalties which were used in slave plantations in the 18th century were also adopted in companies like the Singer Sewing company who also made their employees police each other to curtail malpractices. She clearly stated that her objective is to enable business managers and corporate leaders to comprehend the complicated legacy of slavery practices which have shaped their modern management practices. It is anticipated that such a comprehension of business and economics history
would enable corporate leaders to implement more effective employment welfare and labour practices which would contribute to the economy and the company’s future in the long-term.

Likewise, even Buffet (2013) criticised that when large corporations engage in philanthropic activities they still continue to evaluate the outcomes of their noble initiatives by considering metrics used in their financial statements such as Return-on-Investment. As these metrics are not only myopic but even visualise the under privileged as entities who can be empowered solely to be consumers of goods and services that are made by the very same business practices which have brought about the negative externalities in the first place.

This implies that the senior management within the private sector who desire to engage in class 1/2 CSR activities should adopt a more humane as well as rational approach during project evaluation and project scope definition. To add further, Dam (2008) discussed in his doctoral thesis that although CSR activities compromise ‘pure profits’ in the short run but potentially increases the enterprises’ value. However, the thesis does state strong social sustainability policies and laws/regulations are not always optimal and accordingly, corporations are aware of this shortcoming for which they must engage in self-regulation which in some cases is popularly known as ‘CSR’.

As this section has discussed the ideological foundations, history and theory of our contemporary economic models (i.e., communism, capitalism, socialism and others) of the previous one to two centuries, the authors intend to emphasise the role of philosophy as well which could have not only played a crucial role in the underpinnings of these economic models but could have also lead to the ‘undesirable’ social and environmental externalities either deliberately or unintentionally.

When discussed in the introduction about the trends towards a ‘self-centred’ mindset of people in the recent decades has on many occasions been attributed to a certain facet in Western philosophy known as ‘Anthropological Modernity’. This paradigm which was also discussed in the famous 2002 BBC documentary titled ‘Century of self’ by director Adam Curtis in which ‘Anthropological Modernity’ explicitly asserts the rights of an individual (even corporations are considered as legal persons) over the duties towards family, environment and society. In simple words, the theories of free market capitalism and communism as propounded by Max Weber and Karl Marx, respectively do openly reject the perspective that an individual is also an integral component of family, society and ecology which modern science has proved otherwise (Gurumurthy, 2013; Parenti, 2011). It is essential to note that such ‘self-centred’ individuals are also the stakeholders of CSR related activities and economic policies. Furthermore, the experts stated that such an embedded belief system (by both individuals and even society at large) could be used by governments to justify the establishment of an overarching authoritarian mode of governance for maintaining order within the society. Nevertheless, such authoritarian forms of government possess many intrinsic weaknesses to ensure harmony between social development/welfare and thriving commerce (Schuman, 2011).

On the other hand, the authors (especially the first author who is of Asian origin) intend to clarify that the paradigm of ‘Anthropological Modernity’ is not only limited to the Western nations but have even been exemplified within developing economies such as India. For instance, the remarkably high efficiency of Mumbai city’s tiffin box deliverers popularly known as ‘Dabbawallahs’ has always been attributed to their sincerity and integrity which is further rooted in their cultural values that is based on a ‘tremendous sense of social coherence’ as mentioned by Bino Paul GD, associate
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professor at the TISS School of Management and Labor Studies. To add further, these intangible yet crucial attributes of societal commitment within the business operations has also led to the boom of home-based businesses in which housewives earn extra income by supplying lunch boxes to interested parties, thus leading to increase in average family income. Meanwhile, the taxi drivers in the same city have been criticised by the citizens for their rude behaviour and efficiency in services because most of them are migrant workers and sometimes do not share the same sense of ‘social coherence’ with their fellow Mumbai residents (Wharton Business School University of Pennsylvania, 2011). This directly implies that the sense of social coherence does have the potential to mitigate problems associated with the Agent-Principal theory in which the stakeholders are the principal(s) and agent(s) are the SMEs and corporations.

Accordingly, Krugman (2012), a noted Nobel laureate in economics did emphasise on a quintessential paradigm about the moral basis of Economics and Policy in his 2012 Op-ed in which he stated that the ‘goal and the duty’ of economic policies are in principle to serve the people at large. Accordingly, a renowned critic of CSR activities Reich (2010) has recommended that government agencies structure the agenda for social responsibility for the private sector to adhere by way of robust policies, laws and regulations which are enforceable in nature. However, the conceptualisation, implementation and enforcement of such robust measure may entail considerable transaction costs not only to companies but even existing regulatory agencies and social institutions (Chadwick, 2006).

Meanwhile, Stiglitz (2013a) in his article titled ‘Avoid mistakes of the West’ stated that the direction of technology development (including disruptive technologies which transform entire industries) in the developed western nations is primarily more focused towards saving labour costs (and even labour) which would eventually lead to unemployment. Moreover, he recommended that technology development propagated by the private sector should focus towards the stability of the environment and improvement of economic growth, such as contributing towards better income distribution through better salary packages. This implies that corporate social responsibility can be incorporated within the technology development curve of an institution (private or public) in comparison to the additional measures implemented by the institution for mitigating any undesired social externalities or engaging in class 3 type CSR activities which could be criticised as ‘window dressing’.

The experts during their interviews discussed the disruptive nature of advanced technologies, primarily from the advanced computer and information technology sector which although provides connectivity between distantly located parties, while at the same time also distances users from the visibility of the impacts emanating from their actions which further leads to a moral hazard. One such example would be the trade-based ‘virtualisation’ of agricultural commodities. This form of virtualisation has transformed agricultural commodities, especially food into objects of indiscriminate speculation and forward trading. As a result, the prices of such ‘essential commodities’ have skyrocketed and left more people hungry the world over, notwithstanding the ever increasing production of food which is not being made easily accessible (Mitchell, 2013). Moreover, the plight of the affected stakeholders may not be directly visible during such virtual trading activities when users only focus on certain metrics which they either want to maximise or minimise. With reference to such ongoing trading practices, the experts warned that any positive outcomes of class 1 CSR projects at the regional level could be entirely undone if not bring about more social harm.
5.3 Expert feedback from the informal conversational interview approach

5.3.1 Internal and external roadblocks that impede the success of class 1 CSR projects

The key experts and additional experts from both academia and industry, who provided their feedback via the informal conversational interview approach unanimously agreed to the aforementioned challenges and impediments in Section 5.1. Similarly, experts from both academia and industry pointed out at the potentially unsurmountable challenge of evaluating overall sustainability and simultaneously harmonising a diverse set of social and ecological sustainability activities, which could range from building sanitation facilities in villages and stabilising the nitrogen cycles in nearby farms. Moreover, the pursuit and management of such divergent goals for attaining sustainability could potentially lead to inarticulate governance by both regulatory agencies and class 1 CSR participants (Grano and Tu, 2012). Thus, one of the experts from academia designated the CSR related activities and even its credits trading mechanism to be ‘useless at best and harmful at worst’.

Some of the interviewed experts stated that as corporations are the entities who would eventually benefit in the long run from a much more stable eco-system and society (D’Alessandro and Fanelli, 2009). Therefore, they should not be incentivised by any form of financial compensation either by tax benefits or CSR certificates; nevertheless, the authors did not identify such a viewpoint to be pragmatic enough for encouraging a more positive commitment by corporations towards social responsibility. Moreover, the authors feel the need for both corporations and stakeholders to move beyond the perspective of CSR as a form of ‘charity’ and collaborate for a more mutually beneficial relationship.

In addition, the same experts raised concerns on the voluntary and mandatory nature of CSR measures by certain governments. As in their experience, the CSR regulations are identified to possess a multitude of loopholes which internally weakens the potential of Class 1 CSR endeavour. As a result, some experts from academia recommend eliminating the concept of a private corporation. Meanwhile, other experts from academia and some public intellectuals strongly feel that CSR measures are ‘window dressing endeavours’ and credits trading mechanisms are usually futile attempts towards sustainability and in some cases are far more destructive. Therefore, acknowledging this facet the subsequent Sub-Section of 5.6 would discuss other non-conventional modes of production which possess a higher degree of social sustainability in comparison with the CSR credits trading mechanism.

5.3.2 Pragmatic feasibility of a voluntary credits trading mechanism with appropriate participation of government and regulatory frameworks

a) In terms of feasibility of the proposed credits trading mechanism from a pragmatic standpoint, the Chief Operating Officer (COO) of small-medium enterprise (SME) in renewable energy disseminated his experience during a long distance phone interview. The SME operates in developing nations and is headquartered in an EU nation that provides decentralised energy saving solutions especially through adoption of renewable energy sources. The COO in the interview mentioned that for class 1 and class 2 CSR activities, the company had to collaborate with local regulatory agencies for establishing robust regulatory frameworks for renewable
energy in order to strengthen the national regulatory framework and policies of the nation in accordance with EU norms. The company over the time period of four years had opened three to four subsidiaries and signed contracts with local suppliers for recycling/refurbishment activities and procurement of raw materials and components for the solar cells, solar thermal systems and wind power systems. The presence of this SME lead to an total increase of around 100 employees, both at their headquarters and even the developing nation they were operating (Chidi Nnorom and Osibanjo, 2010). This implies that the SMEs business operations eventually lead to job growth and fortified the local region’s regulatory framework for encouraging more renewable energy projects and enforcing the performance as per the contracts (Stiglitz, 2013a).

Moreover, the COO also stated that even though the carbon offset mechanism as per the Kyoto Protocol was perceived to be substantially lucrative; nevertheless, the transaction costs pertaining to project evaluation, revisions and approvals did pose an impediment, especially that their SME was installing energy systems of 1 megawatt capacity which is far lesser than the capacity outlined in the CDM norms. Accordingly, the COO perceives the CSR credits trading mechanism to be more effective and flexible compared to emissions trading provided the trading mechanism is voluntary in nature and less dependent on the additional redundant evaluation procedures implemented by state-based institutions (such as the United Nations Framework Convention on Climate Change), except for the key safety related regulations for upholding overall stakeholder welfare. Furthermore, the COO also stated that as in EU nations, CSR activities are already practiced in a more voluntary manner and companies are required to report their degree of commitment and their activities to the relevant regulatory agencies and concerned interest groups within the society.

However, the relevant tax norms are to be considered during the issuing and sale of the credits. As a result, this specific case-in-point does substantially contradict the second proposition which recommends the initiation of the CSR credits trading mechanism under the existing CDM initiative.

b Likewise, a long distance phone interview with a consultant for REC trading in which he recommended to initially commence a voluntary credits trading mechanism (similar to voluntary REC mechanism) by establishing a non-profit association. The non-profit association would collaborate between private companies, non-profits and academia to materialise class 1 CSR projects and consult various organisations who intend to engage in class 2 CSR projects. The consultant also pointed out that the formation of a non-profit association which requires close collaborations between various institutions and regulatory agencies could lead to conflicts of opinions and interests which could even lead to break-up of the collaboration owing to the management crises caused by one of more partners (SciDev, 2013). However, the consultant stated that prospects of conflicts and even break-ups should not deter the authors from exploring the opportunity to establish a voluntary trading mechanism for CSR activities. The consultant also recommended that the non-profit association should coordinate the classes 1 and 2 CSR projects with the local regulatory agencies and in due course of time establish a framework which can be implemented at the national level and later with the neighbouring countries as well. Moreover, the
consultant for REC trading stated that in contrast to the 1980s, the present generation of policy makers and educated populace across the globe are aware and even familiar with credits trading mechanism which are aimed towards overall sustainability. In addition, the same consultant for REC trading recommended to establish an inter-registry telecommunications hub for issuing credits (in digital format) to the companies engaged in class 1 CSR activities and also to actualise the transference of credits directly between the parties who are engaged in trading and parties interested to purchase/sell their credits (as illustrated in Figure 3).

5.3.3 The inadequacies of contemporary sustainability mechanisms to reconcile the perspectives of the project developer(s)/enterprises and stakeholders

A prolonged interview with the chief of CSR of a multinational energy company stated that there are a multitude of impediments within the CDM approach of the Kyoto Protocol to define overall social sustainability in geographical locations within developing nations. Moreover, the comprehension of social responsibility and sustainability of the foreign energy company was found to considerably different from the perspective of the pertinent stakeholders located in the region where the company was operating; thus, leading to conflicts of opinions as well as interests. Furthermore, in the experience of the CSR head even the payment of ecosystem services had a broad range of values for attaining ecological stability and as a result, computing the degree of contribution by the company was ascertained to be a major challenge. Therefore, even though the chief of CSR comparatively perceives a substantial promise in the voluntary CSR credits trading mechanism; nevertheless, he still recommended a close collaboration with local regulatory agencies and non-government organisations (which in his opinion was not so easy to materialise) to communicate with local stakeholders and determine their requirements in order to finalise measurable parameters for social responsibility which are to be addressed during the implementation of class 1 CSR projects. In addition, the head of CSR recommended to initiate a voluntary credits trading mechanism at a pilot scale which would be specific for a certain industry located in a particular geographical location.

5.4 The significance of political economy to determine the feasibility of CSR credits trading mechanism

The paradigm of political economy does encompass the co-relation and interaction between commerce, regulatory frameworks, macro-economics (and policies) and even geopolitics. Accordingly, the significance of political economy to govern the conceptualisation, implementation and successful outcomes of any class 1 CSR endeavour cannot be entirely ignored.

Moreover, the political ideology of both policy makers and corporations does play a crucial role in the success of a CSR endeavour. Chin et al. (2013) revealed through their studies of the co-relation between a corporate CEOs political ideology and CSR activities; in which liberal CEOs lay stronger emphasis on CSR related activities even when the desired financial goals are not entirely attained. This was illustrated in contrast to conservative CEOs who chose to cut down on CSR activities in the face of less desirable financial outcomes. On the other hand, both the authors and interviewed experts envisage that the conservative CEOs could benefit from the CSR credits trading
mechanism due to the sales of the CSR certificates would render the endeavour being mutually beneficial.

Moreover, as the study revealed the role of a CEOs political ideologies and personal biases while executing strategic decisions and shaping leadership initiatives would also govern the choice of a particular class 1 CSR project. For instance, a conservative CEO who strongly believes in the ideology of self reliance with minimal external support may opt for providing low interest microfinance for farmers in a developing country to build water storage facilities for their agricultural activities.

However, Chin et al. (2013) ascertained that both liberal as well as conservative CEOs focused more towards ‘doing less harm’ as their CSR strategy as opposed to ‘doing more good’ which is the core motivation of this research paper to incentivise ‘doing more good’ CSR related activities via a suitable credits trading mechanism.

Further research by Chin et al. (2013) revealed that as political ideologies shape the CSR projects of a corporation it has also shown to co-relate with a CEOs political action committee (PAC) contributions. As a result, the experts pointed out that social activists and NGOs could raise concerns pertaining to the misuse of the CSR credits trading mechanism to subsidise the costs of the corporations to engage in lobbying, PAC contributions and even ‘white wash’ their products by offering a lower price with a label of being a ‘socially conscious enterprise’ . In fact, one expert pointed out that corporations could lobby to undermine the safety regulations, reliability requirements and labour rights pertaining to the class 1 CSR activities which would defeat the very purpose of the CSR credits trading mechanism. Therefore, this scenario validates the first proposition of Section 4 pertaining to the facet of moral hazard. Meanwhile, the class 1 CSR projects and its corresponding credits trading mechanism could pose novel challenges in the relationship of the CEO and the shareholders within the Agent-Principal theory; in which the principal comprises of the shareholders and stakeholders. Accordingly, suitable corporate governance mechanisms should be incorporated in accordance with class 2 measure outlined in Figure 2.

Some of the interviewed experts pointed out that even if a robust CSR credits trading mechanism was established with a few success stories by the next decade. The stated method solely cannot bring about a comprehensive and large social development across a wide geographical region, unless strong policies are implemented (and enforced) by the host nation’s government and international bodies that ensure a mutually beneficial relation between foreign/domestic corporations and the pertinent stakeholders of the class 1 projects within the region (Mandelson, 2013). As Figure 2 outlines the compulsion to adhere towards pertinent domestic/international regulations, the authors intend to elucidate that large scale comprehensive social development initiatives require enormous financial, knowledge and material-based resources which cannot be adequately subsidised as well as incentivised by the sale of CSR certificates alone. To explain further, even though the REC’s mechanism has been operational in Europe (and obviously in Germany) for at least a decade; the role of government policy has been instrumental to transform Germany’s dependency on fossil fuels and nuclear energy to renewable energy by virtue of an ‘energiewende’ is an ongoing success story (Davidson et al., 2012).

Similarly, from a social development perspective the investment in Africa by China and its state capitalism is a remarkable case in point (Schuman, 2011). The geo-political and economic development relations between China and Africa have been ascertained to be based on reciprocal benefits (Junbo, 2007). On one hand, China obtains access to natural resources in Africa and on the other hand, Africa as a whole continent has
benefitted in terms of increased employment in mid/high level jobs and skilled labour, growth in infrastructure, technology transfer agreements and building of schools and hospitals (Junbo, 2007; Meibo and Peiqiang, 2013). As a result of the increasing investments, China could gain a strong hegemonic influence over various African states, especially on their trade policies (Junbo, 2007). Nonetheless, without undue interference in domestic affairs such as undermining local economic systems namely local textile businesses and exploitation of unskilled labour (Junbo, 2007). Moreover, as China is a WTO member and accordingly, must abide by the pertinent international and domestic regulations. For instance, South Africa’s strict labour laws and strong trade unions ensure that salary, employee welfare and benefits and training comply with the nation’s legal framework. Meanwhile, certain economists have concluded that the trade and labour regulations need to undergo suitable reforms to provide foreign investors (like China) with competitive work force (Junbo, 2007; Meibo and Peiqiang, 2013).

This illustrates that a robust top-down approach based on strong enforceable policies by governments and international regulatory frameworks does not invalidate the third proposition that focuses on the bottom-up route for empowering stakeholders. On the contrary, the authors intend to highlight the criticality of robust enforceable regulations at both, the domestic and international levels to ensure that any class 1 CSR activity is a success.

On the other hand, as opposed to China’s state capitalism model with reference to its strategic relations with Africa; the participants of a class 1 CSR project in collaboration with pertinent public institutions from the host nation can define mutually beneficial public-private partnerships and subsidise it via the credits trading mechanism for developmental projects of national interest such as healthcare, postal service, education and law enforcement. These partnerships should be structured through robust and enforceable policies for ensuring that the dynamism of private enterprise does not lead to extensive privatisation and undue ‘profiteering’ that may undermine overall social welfare. Likewise, the invitation for collaborative endeavours must not stifle operational capabilities of the private enterprise participants in terms of red-tape bureaucracy encountered during procurement of licenses and payments (Jamali, 2004).

Political instabilities are known factors in the field of political economy and geopolitical considerations; although they pose a detrimental threat towards any class 1 CSR endeavour, nonetheless a well-founded collaboration between local stakeholders and NGOs can be leveraged to mitigate the political crises. On the other hand, the role of NGOs have also been co-related with a nation’s foreign policy (and foreign direct investment in some cases) either directly or indirectly especially by virtue of acting as either information disseminators, lobbying entities and even participation in forming agendas and establishing norms (Younghwan, 2011).

The NGOs do play a crucial role in actualising the objectives in terms of evaluation, execution and generating financial support for CSR related projects (especially class 1) due to their close proximity of interaction with the local (e.g., local communities) and even international stakeholders (e.g., donors). However, the interviewed experts unanimously mentioned that in certain cases they have been criticised for supporting the objectives of the government and corporations (both foreign and domestic) even though projecting an image of empathising with the rights of the stakeholders (Karabulut and Demir, 2006). Because they, i.e., NGOs are closely communicating with the local
stakeholders and relevant authorities within the host/foreign governments and corporations due to which they are in a stronger position to influence media, public opinion and even mobilise people on the streets to protest (Sayer, 2005).

Meanwhile, Moen’s (2012) Master’s thesis illustrates that a bottom-up stakeholder centred approach to CSR can be a powerful tool in mitigating political risks in vulnerable geographical regions such as western oil and natural gas companies operating in Africa. Thus, concurring with the third proposition. Moreover, the degree of adherence to social development commitments have shown to reduce the instances to a certain extent in oil theft, sabotage, armed attacks, protests/demonstrations and even assaulting the staff. However, as discussed in the case of China’s investment in Africa and Germany’s ‘energiewende’, the role of enforceable regulations at both domestic and international levels cannot be entirely substituted by the CSR credits trading mechanism. Moreover, the experts also stated that class 1 CSR measures absorb considerable time to reach fruition (e.g., building a low cost housing facility for middle income groups) in terms of positive social outcomes and therefore, any overwhelming political crises instead of being mitigated would derail such mutually beneficial projects.

5.5 Structuring CSR credits trading mechanism to become more investment friendly

One of the experts argued that purchasers of RECs are more than willing to do so because firstly, the energy is quantifiable in terms of megawatt hour and secondly, that the benefits directly go to the buyers either immediately or in due course of time (US Department of Energy et al., 2010). Moreover, the electricity suppliers sometimes sell a combined package of electricity and RECs to their consumers.

On the other hand when compared to class 1 CSR social development projects which may or may not directly benefit the purchasers of the CSR certificates, especially when the purchasers are geographically distant from the location of the class 1 CSR projects. Therefore, as pointed out by the experts, the stated scenario resembles that of non-profits/NGOs collecting funds from donors who are sensitive to social well being of others. Although the criticism is valid, nonetheless an expert from the field of financial consulting and investment banking recommended that companies who actively engage in class 1 CSR projects can collaborate with financial institutions such as banks and stock brokerage firms to devise mutual fund portfolios of corporations who are implementing class 1 CSR projects. As a result, the corporations implementing class 1 CSR projects can provide a combined package of investment and CSR certificates to their investors who mostly comprise of families and individuals. Accordingly, the investors who invest in such socially responsible mutual fund schemes would not only get handsome financial returns but would also be investing in class 1 CSR projects which as discussed previously are capable of materialising positive sustainable growth (D’Alessandro and Fanelli, 2009; Tsoutsoura, 2004).

Likewise, fixed deposits can be issued by companies opting for class 1 CSR projects. The expert from financial consulting also stated that the recommended mutual fund method could also be a substantial source of investments for the companies listed in the mutual fund for financing large scale social development initiatives; as discussed in the case of Germany’s ‘energiewende’ and China’s investment in Africa in Section 5.4.
5.6 Comparing CSR credits trading mechanism with bottom-up centric social development mechanisms

Easterly (2006) in his book ‘The White Man’s Burden: Why the West’s Efforts to Aid the Rest Have Done So Much Ill and So Little Good’ had pointed out that unfortunately, the economically challenged recipients (or stakeholders) of foreign aid for social development and class 1 CSR activities are unable to demand accountability from their providers. As they do not pose a significant economic threat in terms of ‘market share’ to the financial performance of the corporations to which the interviewed experts also agree with Easterly’s research. On the other hand, even if the purchasers of the CSR credits are in a stronger position to demand accountability, the flexible nature of auditing, measurements and verification of the class 1 CSR activities makes it vulnerable to exploitation (Chen, 2013). In addition, potential purchasers who are geographically disconnected from the location where class 1 CSR projects are being undertaken could exacerbate the stated impediment further. This is also the main reason for critics who label CSR related activities as ‘white washing’. However, if a universal definition of CSR is implemented with an approved set of benchmarks, measurements, auditing and verification procedures by external accredited bodies. Then as illustrated by the experts, the same dilemma as discussed in Section 5.3.3 would occur in which there could be a considerable disparity in perspective between the project developer(s)/enterprises and stakeholders.

Therefore, the interviewed experts recommended that it is crucial for class 1 CSR activities need to be more in the form of trail-and-error method with piece-meal reforms as illustrated by Easterly (2006). Furthermore, the class 1 CSR activities should also account for local details to expedite the most suitable solutions which reconcile a wide range of factors that range from political, social, historical, geographical, institutional and technological in origin. Thus, once again concurring with the third proposition in Section 4.

The interviewed experts mentioned that since the previous decade many intellectuals and social activists have proposed novel modes of collaboration between stakeholders to generate more inclusive economic growth after expressing disappointment with ongoing global financial crises and the widening income gap that primarily favours influential private/public institutions (Krugman, 2012a, 2012b). Accordingly, one such prominent collaborative mechanism is the P2P-based production and open reasoning collaborations (Bauwens, 2006) which has been briefly discussed in Section 3.3. Moreover, the proponents of P2P production and open reasoning have illustrated that such novel forms of social production focused around use-value via mutual consent of producers (stakeholders or otherwise) is known to deliver a higher degree of social sustainability. As the producers produce knowledge, goods and services by utilising distributed resources in the form of recyclable materials available locally (which reduces environmental footprint), fabrication labs which can be accessed for a fee, networked computers for sharing information without too many restrictions and building a knowledge commons which could be in the form of databases and servers to share knowledge/information for everyone to access provided certain licenses are granted in case of commercialisation.

A remarkable example would be the HONFablab Yogyakarta in Indonesia which is an international network of local, open access and P2P Fablabs that expedite innovation and even provide hands on training to local stakeholders. This open fabrication
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framework has been utilised to produce low cost below the knee prosthesis using open designing endeavour that entails sharing of the prosthesis design via knowledge commons so that users can freely use it and even make suitable changes, as and when required.

During the discussions with the experts, it was further revealed that the advent of such open cooperation methodologies would render the very objective of CSR to near obsolescence.

However, the CSR credits trading mechanism can also be considered by the corporation, as it would require substantial financial resources to establish and maintain the distributed infrastructure such as the Fablabs and the knowledge commons generated by the collaborative efforts between the corporation and the community (Bauwens, 2012). Also, the employees can contribute a few work man hours to assist these stakeholders to build their specific appropriate technologies which would address their social, environmental, ethical and cultural aspects (Holmes and Smart, 2009; Pearce, 2012).

As mentioned by Easterly (2006) that empowering local communities to build their own economies in a self sufficient manner is known to contribute towards the regional income distribution. For example, Mr. Pawar who is the head of a small village in the Indian state of Maharashtra inspired his villagers to actively participate in water conservation by using their own skills to create low cost water storage systems. In addition, he established an auditing mechanism for water and the government funds received. Likewise, he trained the village youth to participate in cleanliness drives and inquire about the economic and health conditions of the families in the village. Accordingly, there was an increased output in farming and milk production, thus contributing to the income levels of most families so as to help other impoverished families raise their standard of living (Menon, 2013). Therefore, such class 1 CSR-based P2P collaborative endeavour does possess the prospects to bring about positive social change at the regional level (Bauwens, 2012).

Nonetheless, pertaining to open innovation and developing appropriate technologies which are characterised by small-scale, decentralised, labour-intensive, energy-efficient, environmentally sound, and locally controlled; the experts explicitly state that there should be no form of exploitation or even intimidation with reference to intellectual property related issues. Because, majority of the research and innovation is further based on prior research which if strictly protected would impede follow-on development crucial for the society (Stiglitz, 2013b). Moreover, as mentioned in Section 3.3 that the corporations participating in such class 1 CSR activities are being partially (if not entirely) compensated and the knowledge commons should be freely available for sharing with other local/distant stakeholders without appropriation by any private/public sector institution.

Likewise to P2P mode of collaboration, the experts pointed out another socially conscious business models which adopt the principles of ‘Permaculture’ that entails the incorporation of ecological dynamics within their operational framework. For instance, The Permaculture Credit Union in Santa Fe, USA is focused on strengthening the vulnerable borrower by working with them to improve their credit-worthiness, as opposed to traditional pay day lenders who are known to exploit by demanding the highest possible interest rate from the borrowers (Mollison and Holmgren, 1978; Scott, 2013).
Such examples of bottom-up social development mechanisms in the view of the experts again renders the CSR credits trading mechanism as a more or less obsolete model because on one hand the corporation is engaging in direct/indirect exploitative activities and then attempts to offset or alleviate the undesired externalities by class 1 and/or 2 CSR projects. However, as pointed out previously in the case of P2P and open reasoning; a corporation can engage in Permaculture related activities in similar manner either by class 3 or class 1 CSR type activities.

5.7 Importance of monetary and macro-economic policy to govern the success of CSR credits trading mechanism

The experts stated that discussion of CSR credits trading mechanism would be left incomplete without considering the co-relation between economic/monetary policy, inflation, employee wages and working conditions and income inequality which would directly govern its feasibility. Because, the purchasers (and their purchasing power) and the project developers of CSR credits themselves are subjected to both macro and microeconomic circumstances. For instance, an expert mentioned that during the 2008 financial crises there was a considerable reduction and in some cases elimination of tax rebates/subsidies from the government for RECs. Likewise, CSR credits could encounter an identical fate in the presence of another upcoming financial crises.

Accordingly, Storm and Naastepad (2012) in their latest book Macroeconomics Beyond the NAIRU state that contemporary economics perspective views wages as costs to the businesses which eventually leads to lowering of their profits due to the widening income gap and poor purchasing power.

Storm and Naastepad (2012) stated that excessive restriction by developed economies in terms of government spending on benefits, lowering minimum wages and deregulating the labour markets has lead to higher unemployment and even more inequality which leads to lower economic growth. In the opinion of Storm and Naastepad (2012) both economic growth and egalitarian growth go hand in hand as opposed to being contradictory to each other for which trade-offs are necessary. As labour productivity has shown to be higher in economies with regulated and well coordinated employee industrial relations which facilitate the employees to reciprocate by delivering higher productivity, lower attrition rates and accumulation of valuable knowledge curves.

Moreover, Storm and Naastepad (2012) also mentioned that the conventional wisdom purports that government policies which reduce the rate of ‘natural unemployment’, i.e., increasing employment (around 6%) could lead to an accelerating rate of inflation for which reversal may not be an easy task. However, prior to the 2008 financial crises the lower inflation caused by wage squeezing lead to lowering interest rates (for borrowing) by monetary policy that lead to an enormous increase in private household and corporate debt; thus leading to economic instability. Meanwhile, the wage squeezing was accompanied with poor working conditions, longer hours and stagnant wages. Such outcomes would further lead to many other social costs as well (Krugman, 2012a, 2012b).

In contrast to the contemporary lens of macroeconomics, Storm and Naastepad (2012) argue that higher wages with additional employment leads to increase in overall demand which fuels more profits and investments. The investments can be used for implementing more productive methodologies for commercialisation and even stimulate innovation in labour saving technologies.
Furthermore, the recent spate of economic recessions have been investigated by Jackson and Dyson’s (2012) in their recent book titled, *Modernising Money: Why Our Monetary System is Broken and How It Can be Fixed*. And it denotes that economic recessions usually tend to *undermine regulations* that protect environmental sustainability and social welfare (such as minimum wage and labour rights) by way of *implementing funding cuts due to expanding government debt*. Thus, not only stifling technology innovation in sectors that benefit the environment, but channelising the funds to extractive and exploitative industries which could further undermine the overall sustainability.

This implies that even if project developers of class 1 CSR activities adhere to the domestic and international regulations they may either ‘unintentionally’ defeat the very purpose of the credits trading mechanism due to the attenuated regulations. Moreover, the new technologies with the potential of actualising positive social and environmental outcomes would become uneconomical to pursue.

The interviewed experts did mention that concurrent to the social and economic upheavals due to financial crises could pose an existential threat to the environmental stability, especially within developing nations (and emerging economies) which encounter ecological degradation during the pursuit of economic growth. For instance, in the late 1990s, the Asian currency crises that lead to the financial collapse of the Thai Baht raised an overwhelming concern about further environmental deterioration. Mainly, because there could be budget reductions for environmental protection and increased exports of natural resources (and produced goods) for reinvigorating the economy (Ministry of Finance, Japan). In addition, the ecological disruption occurring mainly in rural areas which are usually rich in natural resources could lead to socioeconomic upheaval. As the disrupted ecosystem reduces agricultural output further leading to food shortages and its unavoidable social costs (such as food riots). Consequently, the lack of growth opportunities within the rural areas would lead to mass migration into urban areas that would eventually lead to the collapse of the cities and its infrastructure. Some of the experts did explicitly state that any comprehensive CSR-based endeavour whether subsidised by credits trading or mutual fund investments in Section 5.5 would not be sufficient to rectify such complex quagmires.

Acknowledging the criticality of the Asian currency crises in late 1990s, the interconnection between global financial circumstances, currencies, monetary policies and geo-political dynamics are well known (Klein, 2007). Accordingly, Pastreich (2013) of The Asia Institute in an interview stated that governments across the globe should acknowledge the role of a stable ecosystem with the continuity of their economic future; and accordingly, issue ‘green bonds’ to initiate large scale programmes to restore the already damaged climate and ecosystem. In addition, he recommends that not only should governments co-relate environmental health with economic growth to be reflected within financial transactions. In fact, a global ‘eco-currency’ should be introduced that relates its value to the health of the climate and ecosystems so as to either serve as a universal currency or a crucial factor to modulate the value of all other global currencies based on the commitment of each nation to protect the environment. Although the endeavour to evaluate the environmental status at both global/local levels with the establishment of worldwide acceptable standards would pose a major challenge; nevertheless, countries would be able to increase the value of its currency and also control its monetary supply based on the health of the local environment. The experts stated that a ‘healthy global eco-currency’ would appreciate the currency of a nation with a higher commitment
towards environmental protection to become a lucrative region for class 1 CSR activities. Because eventually both the project developers (usually from developed nations) and developing nations would have a stronger currencies. Thus, making technology transfer, implementation and CSR certificates purchases less expensive for either party. However, the experts pointed out that care is to be taken so that the scarcity of the ecological stability should not be used to raise the value of the eco-currency via short selling and indiscriminate speculation which would be ubiquitously disastrous.

This whole sub-section implies that the feasibility and success of the CSR credits trading mechanism would eventually be governed by government policy and macro/micro economic circumstances. Moreover, the harm caused by poorly conceptualised and implemented policies cannot be undone by CSR related endeavours.

6 Concluding points and implications for future research

The research paper is one of the few to discuss in substantial detail about a market-based approach towards promoting ‘tangible’ CSR endeavours with reference to non-conventional modes of social development mechanisms such as open source reasoning and permaculture as well as a wide spectrum of environmental and micro/macroeconomic facets that occupy the centre stage of domestic and international circumstances (from Sections 5.4 to 5.7). Also, the contemporary credits trading mechanisms of renewable energy and carbon offsets have provided a conceptual scaffold for the authors to envisage an analogous approach for CSR activities which should be complementary in nature owing to its flexibility and decentralised local approach towards attaining sustainability. Notwithstanding the challenges outlined in Sections 5.1 and 5.3, the experts as a part of future research have recommended the authors to explore the feasibility of a voluntary CSR credits trading mechanism for a particular corporation operating in a host nation which is an emerging economy. Likewise, to determine other mechanisms of obtaining funding for class 1 CSR projects other than credits sales, mutual funds and fixed deposits. For instance, long-term fixed price contracts, price hedging via long-term contracts, P2P lending and social development-based purchase agreements.

The experts with comprehensive expertise in their respective fields illustrated that project participants and policy makers need to acknowledge that class 1 CSR activities have far better potential to deliver desirable outcomes at the regional level of a host nation. Meanwhile, for a comprehensive wide scale social development would require the role of robust enforceable policies as exemplified in the case of Germany and China in Section 5.4. Likewise, the socio-economic crises caused by extensive climate change crises and poor monetary policies by both developed and developing nations cannot be mitigated by the proposed CSR credits trading mechanism (Parenti, 2011; Storm and Naastepad, 2012).

Throughout Section 5 it is observed that only the first and third propositions hold validity. On the contrary, the second proposition although appears more pragmatic at the first instance, nonetheless the feedback from the experts as discussed in Section 5.3 illustrate the ground-realities of the stakeholders for which a more localised and voluntary credits trading mechanism is most suited which should gradually progress towards regional and national/international levels.

The cost, regulatory and knowledge intensive nature of the proposed CSR trading approach may discourage SME from venturing in class 1 related activities. And probably
they would choose to purchase and re-sell the certificates for monetary gain to compensate for their adherence towards class 2 measures. It is important to note that re-selling is not permitted within the RECs and emissions trading for carbon offsets. Meanwhile, the feasibility of re-selling CSR credits is to be considered as a part of future research. The motivation to consider the option of re-selling of CSR credits by purchasers was to provide a certain degree of resemblance with investments in fixed deposits or mutual funds which can be bought and sold. However, the experts again warned about the abusive practice of short selling and speculation in the sale and re-sale for CSR credits either within the futures exchange (mentioned in Sections 3.7, 5.2 and 5.7) or in a voluntary trading system (as discussed in Section 5.3.2). Therefore, the consultant for REC trading recommended the need for robust governance by the voluntary system to regulate the issuance of CSR credits and prevent abusive practices, including fraudulent activities. As such unscrupulous behaviour would discourage both, project developers and purchasers.

The experts and authors acknowledged that enterprises engaged in class 1 CSR measures could potentially bemoan that other enterprise(s) who chose solely to limit themselves at class 2 measures are free riders who are profiteering from the purchase/re-sale of the CSR credits. This would also result in knowledge asymmetry wherein few enterprises and institutions who have been executing class 1 CSR projects to have gained substantial knowledge and access to tangible resources (both monetary and material) which would eventually lead to an oligopoly structure within the market (Goettler and Gordon, 2012).

The discussion in Section 5.2 pertaining to the role of ‘modernity’ and economic theory highlights the importance of a personal ethics and commitment towards society and ecology at large in contrast to sole dependency on the policies for either encouraging good social behaviour or penalising externalities. The interview of British Labor Politician, Mr. Tony Benn by Olivia Knight of the Guardian UK newspaper reinforced the paradigm of personal ethics and commitment towards society at large can ensure long-term success of for-profit businesses (Knight, 2014). The interview discussed Tony Benn’s personal experience of subscribing to pro-socialist values in which essential national services such as energy, water, health and education were in the form of public ownership and concurrently encouraging the growth of private enterprise which strongly believes in delivering products and services that offer genuine value, respects labour laws, provides ‘decent’ jobs and regularly pays the appropriate taxes. This approach has been coined as ‘socialist entrepreneurship’ which although does not express any hatred towards private enterprise but does express its disappointment with large scale multinational corporations who are accused of exploiting cheap labour, take undue advantage of tax breaks and intimidate small business owners.

The authors although concur with certain thoughts disseminated by the aforementioned British labour politician about the role of SMEs in strengthening the overall economy of any country; nevertheless, even large scale multinational corporations as a part of their CSR initiatives can utilise the discussed credits trading mechanism and encourage SMEs which would directly benefit their supply chain and distribution or facilitate the growth of the local economy. A similar example was already discussed in Section 5.3.2 about a SME in decentralised renewable energy systems which also led to the growth of local small businesses.

Furthermore, businesses with negative social impacts could indirectly offset their externalities via sponsoring R&D projects that could address any one of the class 1 CSR
projects and also purchase CSR credits. The critics of CSR activities who express their disappointment towards weapons manufacturing institutions for their negative social externalities would ironically be surprised to learn that various military funded technologies can be modified with minimal effort to be used for class 1 CSR projects. For instance, the US Department of Defense has started a Climate Change Rebate Programme for fuel cells to encourage new ventures in renewable energy (US Department of Energy et al., 2010).

The scope of class 1 CSR activities which could require the application of advanced technology in materials sciences and biotechnology need to be thoroughly evaluated by stakeholder representing groups and public institutions for their undesired systemic outcomes. For instance, biotech-based innovations which utilise genetic engineering for modifying bacteria, algae, fungi and other unicellular or multi cellular organisms for applications in treating wastewater and emissions (for example, Ennesys and Origin Oil). The experts mentioned that such molecular manipulations of living organisms are usually not evaluated on a holistic and systemic scale, especially in terms of moral hazards and negative impact on overall health and well being of the population. As a result, the biodiversity of the ecosystem can be substantially threatened through widespread contamination because these micro-organisms are ubiquitously present and constitute a critical component of the human food chain. Concurrently, in the critics’ viewpoint the socially controversial approach of intellectual property rights and ownership of living organisms may once again result in harmful ‘rent seeking’ by Enterprises with tremendous resources and political influence at their disposal (McAfee, 2003). Likewise, auditors and stakeholders who are able to review and clear the proposed class 1 projects by the project developers should discourage the adoption of ‘Geo-engineering’ projects which are aimed at manipulating the earth’s climatic system for combating global warming. The justification by the authors is based on the unpredictable outcomes of such activities (such as exacerbated drought cycles in regions not subjected to geo-engineering) and the moral hazard of the project developers not addressing sustainability in a holistic manner (Hamilton, 2013).

With respect to policy related implications, the authors do concur with Ihugba (2012) that the role of governments is critical for devising suitable international and domestic guidelines for class 1 CSR projects which are conceptualised for delivering substantial socio-economic outcomes. It is the duty of project auditors, stakeholders and policy makers to hold each other accountable in order to approve class 1 CSR projects which do not have undesirable systemic effects such as widespread bio-chemical contamination by certain forms of genetic manipulation and/or geo-engineering (Hamilton, 2013; McAfee, 2003). Although governments and policies should permit considerable freedom for corporations and their stakeholders to opt for any suitable number of Class 1 CSR projects. Likewise, Katamba et al. (2012) by their research have recommended the Ugandan and other sub-Saharan African Governments to gain inspiration and even emulate CSR regulations from neighbouring South Africa and developed Western nations in terms of promoting and enforcing CSR. These could range from providing incentives to SMEs to participate in class 1 CSR activities as opposed to only purchasing CSR certificates to establishing mandatory regulations like environmental reporting and restriction of hazardous substances (RoHS) guidelines.

Furthermore, the challenges pertaining to justify CSR activities to a corporation’s shareholders in terms financial statements such as balance sheets and profit and loss/income statements are well known (Environmental Leader, 2007). Meanwhile, the
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Experts have responded to such impediments by stating that the discussed CSR credits trading approach due to its potential cash flows and revenues makes tangible class 1 CSR projects more friendly towards income statements and balance sheets, especially when the class 1 project can be accounted within long-term assets in terms of equipments, buildings and furniture/fixtures with its respective depreciation as tangible assets. Likewise, organisation costs, intellectual property (and its amortisation) and goodwill as intangible assets.

To summarise the essence of the research paper, the scholars and intellectuals throughout the globe are well aware of the time consuming nature of the transition of our global economy from a non-sustainable linear system to a more sustainable closed loop economy. Accordingly, this research paper illustrates that the discussed CSR credits trading mechanism provides a multitude of opportunities for accommodating sustainability with a vibrant as well as an inclusive commerce.

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References


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Ministry of Finance, Japan, *Lessons from the Asian Currency Crises* [online]


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Appendix

Figure A1 CSR of an enterprise and the stakeholders (see online version for colours)

Source: Kytle and Ruggie (2005)