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Carbon Credits - Most Value and Profit-Added Advantage to Business

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Abstract: ***The environmental pollution is one of the most concerning topics across the world. It is the underlying cause of global warming and other emerging diseases impacting on not only the human health but also the resulted in natural disasters such as flood, hurricanes disturbing the environment and ecological balance. As a consequence of these impacts, the Kyoto protocol was developed to deal with these conditions and to make a gauge upon the pollutants mainly carbon emitted by the worldwide nations or organizations. The term "Carbon Credit" (CC) was emerged out of the protocol with the central aim of reducing the emission of the greenhouse gasses. CC is defined to be equivalent to one ton of Carbon Dioxide either prevented to be emitted or removed that has been already emitted. The protocol also provides the mechanism via which the nations or organization can reduce their carbon emission in their environment. In this article, these mechanisms have been discussed along with the role of human resource management in gaining carbon credits.***

Keywords: Carbon Credit, Kyoto Protocol, GHRM

1. Introduction

Several human activities such as extensive use of fossil fuels, use of excessive electricity, agriculture, deforestation and others are the most significant cause emission of CO2 and other gasses into the atmosphere. These gasses capture heat from the sun that means the greater emission of gasses thus results in the issues of global warming which in turn lead to the change in the climate and thereby increase in earth temperature globally (IPAC, 2007). The climate change consequently has an impact on the weather including hurricanes and severe heat waves which ultimately leads to prevalent human diseases including respiratory illness, infectious diseases, cardiovascular diseases and much more (Patz and Campbell-Lendrum, 2005). Therefore, these changes are bringing life-threatening impact around the world. If the issue is continued to be in future, then it could lead to a more devastating impact on human and earth as a whole. However, the attempt in the form of Kyoto protocol has been surfaced out to deal the severity of these issues mostly developed due to the past business activities.

2. Kyoto Protocol

In the year 1997, the Kyoto protocol was made under the United Nations framework convention on climate change (UNFCCC) (Manne & Richels, 1998). 141 countries signed the protocol on the voluntary basis. Under the Kyoto protocol, the industrialized nations are legally bound to decrease the greenhouse gas (GHG) emissions. Moreover, the protocol provides the mechanisms via which these nations can achieve GHG obligations, such as, by emissions trading, clean development, mechanism and joint implementation (UNFCCC, 2014). However, these countries have opportunities to buy carbon credits from the developing countries those have credits in excess and can also make a profit by trading it.

3. Carbon Credit and Mechanism of Reduction

Carbon credit concept - One Carbon Credit (CC) or certified emission receipt (CER) is defined as equivalent to one ton of Carbon Dioxide either prevented to be emitted or removed that has been already emitted (MHCarbon, n.d.). Thus, CC is a means to enhance environmental friendly initiatives while conducting business ethically.

CC has become the part of norms of **international emission trading**. In these norms, countries or companies have given a particular limit to which they are allowed to generate Carbon Dioxide (CO_2). The government regulates pollution by supplying the limiting number of permits to each industrial plant. While some attain the pollution reduction at low cost due to the utilization of newer technology or products produced, have less polluting substance, in contrast, others attain the same reduction at an extremely high cost or unable to reduce them to the given limit. However, these permits are allowed to be brought or sold (UNFCCC, 2014). Thus, the industrial plants which have permits in excess due to production at low cost can sell their unused permits to the needed one while making money or profits from it. On another hand, the industrial plant can buy these permits that are cheaper than the reducing the high pollution at a high cost. Thus, both the firms increase their profits while reducing the pollution level. Therefore, while some companies or countries have a chance to buy credits if they are producing in excess CO_2, others have an opportunity to selling them. In this process, the total threshold emissions are gauzed, and any reduction below this level is awarded by allocating monetary value via trading.

The carbon credits can be bought, sold or exchanged by the business in the international market depending on the prevailing market price at that time. CC is frequently referred as carbon offset - these are the certificates given to the companies or countries that have reduced the emissions of GHG successfully. Moreover, numerous companies have

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joined the race of competition to cut down the carbon emission worldwide. For instance, the Bank of America, General Motors (GM), Google, Ford and Chrysler companies are utilizing carbon offsets to achieve their carbon neutrality goals and earn carbon credits (Kleiner, 2007).

Clean development mechanism is the regulated under the Kyoto Protocol that allows a country with given limit for producing the pollution or reducing the same, to set out the projects in developing countries. However, in return, they have a chance to gain certified emission reduction (CER) credits (UNFCCC, 2014).

Joint implementation is also under Kyoto protocol where one country is allowed to set out the project in the country with the similar goal of reducing emissions thereby the former has a chance to gain emission reduction units (ERUs).

Carbon emission reduction and gain carbon credit - Power purchasing agreement (PPA) is a contract via which an organization can substantially decrease their energy costs along with fulfilling the commitment of carbon reduction (National Renewable Energy Laboratory, 2009). Apart from this, there are several ways two major ways to reduce or eliminate the emission of carbon. Afforestation & Reforestation activities help in retaining or capturing CO2 from the atmosphere and thus aid in lowering carbon emission in the atmosphere. Further utilizing the renewable source of energies such as solar energy, wind power, and others can also boost in the reduction of the CO2 emission. Further, using email for sending soft copies of business documents to other instead of using paper. Further, fostering green purchasing such as recycled paper can also aid in reducing the waste. Reducing, reusing and recycling waste can help limiting as well as decreasing the carbon emission in the environment (EPA, 2016). For instance, General Motor takes care of all waste generated from day-to-day operations by utilizing land-free facilities to reduce, reuse and converting them into energy (GM, 2015).

The organizations such as NSF also foster landfill-free programs for evaluating, verifying and granting the waste management process executed by companies (NSF, 2016). Another reusing the waste generated as end-waste products from one manufacturing plant to another plant where it serves as the raw material can also be accomplished the goal of reducing waste and achieving Reutilization at maximum. Finally, a business can also minimize the waste production and thus carbon emission by manufacturing or using products that can be recycled at maximum. For example, tons of papers are recycled via programs at Bank of America each year (Bank of America, 2012).

4. Carbon Credit: A Case Study of Role of HR management techniques at General Motors Company

General Motors (GM) uses landfill-free operations to promote environmental sustainability worldwide. It uses several measures including sales of by-products from the production, decreasing carbon footprint, reducing the use of materials and aimed to lower total wastage production to accomplish its goal (GM, 2015). Their operations further include increasing the use of renewable energy as well as to enhance its efficiency. Moreover, adoption of these measures has helped them to produce around one billion dollars from recycling.

However, the human resource management is one of the key strategies for initiating green strategies and achieving the goal of carbon offsetting and earning carbon credits. Following are some of the method utilized at GM via which HR can be engaged in environmental sustainability efforts and earning carbon credits (Hermes, 2016).

1) **Use of bottom-up approach** - the workers is placed in the top positions instead of placing managers at the top. All other in the management are under them and provide support and help to attain their desired goal
2) **Building teams at the workplace** - employees start to share the enthusiasm when they are working as a part of the team that undergoes to catalyze themselves and thus the growth is at an exponential level. For instance, there are five to six persons in the context of a team in GM plants where each team has a group leader. The set goal is for the entire team as a whole.
3) **Empowering employees** - employees are at the bottom-line and allowing them to make decisions and execute plans will facilitate their understanding of the place where they are working. Moreover, the employees are filled with the excellent ideas for the better execution of the program in a company.
4) **Opt for an enthusiastic natural leader at challenging situations** - there is a case when the teams are not found to be engaged and passionate in the workplace. The situation can be handled by a partnership with the enthusiastic natural leader on the board who will serve as a changer that will change the mind of the negative employees and after that, the success will come as a result of enthusiasm.
5) **Collaboration and sharing of success** - the collaboration is one of the substantial means of open communication between all levels of organizations. For example, in GM Company, the manager of one plant can directly make an inquiry to another manager about the method through which the plant in which he is working has become land free. Moreover, the GHRM policies' strength have been shown to be directly related to the intensity of environmental sustainability system and policies by different companies (Cherian & Jacob, 2012)

5. Conclusion

GHRM practices are becoming common in organizations around the world to attain competitive advantages among the corporate world. Additionally, they are also gaining revenues from the measures such as landfill-free operation, use of renewable energies, reduced carbon emissions and other that ultimately helping them for carbon offsetting or earning carbon credits.

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