

Executive Summary

An executive summary of the final report of work done on the minor research project of **Mr. Avinash**, *Assistant Professor, Department of PG Studies in Commerce, St. Aloysius College (Autonomous), Mangaluru*, entitled **“Problems and Prospects of Carbon Credit in Dakshina Kannada - A study with reference to industries in Mangalore”** sanctioned by UGC , vide sanction letter No. **MRP(H)-0178/12-13/KAMA002/UGC-SWRO** dated **29/03/2013**.

In recent years, we are witnessing intense weather conditions in the form of rising sea level, shrinking snow packs, disappearing glaciers and polar ice, extreme weather events, damaged coral, uneven climate seasons. India’s situation is also no different to it. Three equally spread annual seasons of India (i.e., summer, rainy and winter) is now replaced by heat waves, cold wave, cyclones, flood, famine, low rainfall and so on. The root cause that can be attributed to this natural mayhem is global warming which is a direct result of reckless anthropogenic activities with zero focus on sustainability. But now lot of efforts have been put in to place to protect and sustain the environment. One such initiation by the United Nations Framework Convention on Climate Change (UNFCCC) which has been accepted by majority of the world leaders is the carbon credit mechanism. A carbon credit is a generic term which is used to describe any tradable certificate or permit representing the right to emit one tonne of carbon dioxide or other Greenhouse Gases to atmosphere. This plan works by capping the amount of total emissions that can be released by a country and industries. As carbon credit is an appropriate measure to protect environment and to promote industrial development, there is a necessity to put a lime light on the problems and prospects of carbon credit in our country.

The recent policy push of the government of India for economic development through “Make in India”, “Smart City” and other programmes and Mangaluru can be one of the hotspot for such development due to its inherent attributes, its ideal to examine the potentials for the actual application of carbon credit in this region.

Therefore, this study has investigated various problems faced by some of the industries and the scope for the application of voluntary carbon credit mechanism in Dakshina Kannada district, a region witnessing rapid development of industries. This study has been undertaken in the Baikampady Industrial Area wherein eight large scale industries which emit GHG has been selected and a detailed investigation has been carried out through personal interaction via questionnaire with some officials of the units for the period commencing from November 2013 to May 2015. This study has also made an attempt to identify various green initiatives programmes undertaken by the respondent companies in the district.

Through this investigation, we have found that most of the companies have a great degree of sensitivity towards environment as 10 – 40 % of the funds allotted to CSR activities have been utilised for eco-friendly initiatives. Moreover, the companies under the study have initiated ample green initiatives programme in the region of Dakshina Kannada district. Ambient Air Quality Monitoring System (ARQMS) system to measure air quality, Cement sustainability initiative, ‘Membrane Bio-Reactor (MBR)’ technology for treating sewage, Methane separation and Recovery Mechanics, ARQMS system to measure air quality, etc., are some of the best practices of these industries instigated in Mangaluru region to safeguard the environment. Self rating of eco-friendly activities of the companies has also supports the environment concerns of industries in the region as six out of eight companies are happy with their environment friendly practices and initiatives. It has also been evident in the study that the emission of carbon oxides and other GHGs are quite low (less than 0.5 tonne in the region and the companies are following regular green audit programme. However, the concern here is there is no uniform reporting of GHG by all the companies and hence it was difficult to track real emission of these gases.

Though no company trade in or got carbon credits from UNFCCC due to low intensity of eco-friendly programmes, the study has discovered that MCF has initiated a CDM project which is focused on reducing the fuel consumption in Boiler by utilizing waste heat steam on a small scale. Such initiatives in future will transform the region and may make the region one of the prime locations in the state to acquire

carbon credit from CDM authorities and will enhance the scope for carbon trading in the region.

The international standard of carbon credit makes it almost impossible for these companies to procure credits with small scale initiatives. However, the region has lot of potential to implement indigenised carbon credit (voluntary carbon credit trading system) to control the emission, as majority of the industrial units are in favour of the implementation and effectiveness of voluntary carbon credit mechanism as found in this investigation. But, retrospective regulatory structure, lack of awareness programmes with respect to carbon credit trading, poor volume of trading of carbon credits in Indian futures exchanges (i.e., MCX and NCDEX) may become a strong obstacle in the development of this mechanism in the region as well as in the country as shown in the study. Despite these possible adversaries, this investigation recommends for the initiation of Indianite carbon credit mechanism with a cap & trade approach wherein the government should set a national goal for total green house gas emissions either for a quarter or for a year and then should allocate 'credits' to companies which allow them to emit a certain amount of greenhouse gases. If a company has excess credit or unable to utilise all the allotted credits, it can sell or trade the excess credits to the company which is in need or is on the verge of exceeding its allowances.

The study also recommends for the formulation and implementation of GHG Reporting Standard in order to ensure mandatory and uniform reporting of greenhouse gases by industrial and commercial undertakings with in the country. The study provides more impetus for the sensitization of opportunities and advantages of carbon credit and market among Indian business community. Finally, the study upholds the implementation of carbon credit mechanism in the country on trial basis in order to promote sustainable and inclusive development of economy, nature, society and so on.