Available online at http://www.journalcra.com

International Journal of Current Research
Vol. 10, Issue, 07, pp.71708-71710, July, 2018

INTERNATIONAL JOURNAL OF CURRENT RESEARCH

ISSN: 0975-833X

RESEARCH ARTICLE

INVESTMENT IN ECOSYSTEM: CLEAN DEVELOPMENT MECHANISM

***Yashodhara Barhate**

Pune University, India

ARTICLE INFO

Article History:
Received 05th April, 2018
Received in revised form
17th May, 2018
Accepted 25th June, 2018
Published online 31st July, 2018

Key words:
Sustainable development,
Clean Development Mechanism,
Footprint, Sequester.

ABSTRACT

The rising awareness towards sustainable development has prompted the emergence of various global indices and agreements to encourage economic support to environmentally responsible investment. Carbon credit market has become a multi-billion dollar industry for credits issued under the Kyoto protocol. India is being heralded as the next carbon credit destination of the world. India is a Party to the United Nations Framework Convention on Climate Change (UNFCCC) and the objective of the Convention is to achieve stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. This paper highlights that the Local communities in Tier III cites of India could accrue benefits by reducing the carbon footprint and selling carbon sequestered by Clean Development Projects in Kyoto based markets. It is an exploratory research to understand the opportunities for investment in Ecosystem.

Citation: Ashok Brahma. 2018. "Bodoland territorial council a sixth schedule area: A Mini View", *International Journal of Current Research*, 10, (07), 71708-71710.

INTRODUCTION

There has been a rising realisation that human beings have a responsibility towards other living organisms on earth, as well as to fellow human beings and future generations. This awareness has prompted the emergence of various global indices and agreements to encourage economic support to environmentally and socially responsible investments. Environmental finance refers to a wide range of issues. It incorporates aspects of risk management, corporate finance, investment analysis, climate mitigation and pollution costs, and renewable energy and energy efficiency practices. The market for ecosystem services is so embryonic that most observers do not yet fully understand where the best opportunities lie, nor the full extent of market limitations. The investors will only start investing in the conservation, or sustainable use of ecosystem services under the following circumstances:

- They are forced to by regulation or the pending threat of regulation in the (near) future.
- Payments deliver a return on their investment (i.e. a business benefit).
- Payments are made for charity or philanthropic reasons (i.e. donations).

****Corresponding author:*** *Yashodhara Barhate,*
Pune University, India
DOI: https://doi.org/10.24941/ijcr.31568.07.2018

The Scope of Study is limited to the business opportunities that can be identified to enhance investment in Ecosystem

- Emphasize the business benefits of investing in ecosystem services
- Use the opportunities of a growing carbon market

MATERIALS AND METHODS

The Kyoto Protocol is a 1997 international treaty which came into force in 2005, which binds most developed nations to a cap and trade system for the six major greenhouse gases. Emission quotas were agreed by each participating country, with the intention of reducing their overall emissions by 5.2% of their 1990 levels by the end of 2012. Under the treaty, for the 5-year compliance period from 2008 until 2012, nations that emit less than their quota will be able to sell emissions credits to nations that exceed their quota. The period for mitigating emissions by the parties under Kyoto is coming to an end by 2012. Carbon credit market has become a multi-billion dollar industry for credits issued under the Kyoto protocol. India is being heralded as the next carbon credit destination of the world. Increasing Per Capita Carbon Emission is a global problem to be tackled. According to study of environmental implications of consumption patterns across income classes in India, done by Parekh *et al.* (1994) the carbon emission for urban India according to the expenditure classes were given as follows: -

Table 1. Per capita carbon emissions by income classes (kg C/year)

Urban	1989-90	2010
Bottom class	103.4	122.5
Middle class	245.7	279.4
Top class	873.6	914.7
Total	237.4	476.4

Of this consumption, 62% are due to private consumption, while 38 % is due to public or Govt.sector consumption. The direct or indirect consumption of each resource including food items, manufactured goods, energy, transport, durable goods, fuel etc. was converted to the carbon emitted during the production and consumption of that resource. Assuming a linear rise in the per capita expenditure values, we can calculate it for the intermediate years. Table 2 depicts per capita emission values by various income classes.

Table 2. Per capita carbon emission, by income classes (kg c/year)

	1990	2000	2010	2020	2030
Top class	873.6	894.15	914.7	935.25	955.8
Middle class	245.7	262.55	279.4	296.25	313.1
Bottom class	103.4	112.95	122.5	132.05	141.6

The emission reduction can generate income through the implementation of Clean Development Mechanism.

Research Objectives

- To explore the investment Opportunities in Renewable energy projects.
- To Study the Implementation of CDM projects in Ahmednagar.

Significance of Study" India is endowed with abundant renewable energy sources—solar, wind, biomass, andsmall hydroelectric—and the Government is working proactively to develop them. . The Ministry of New and Renewable Energy (MNRE), formerly the Ministry of Non-Conventional Energy Sources (MNES), has proposed exploiting the full potential of renewable energy sources to increase generation capacity in the country. Since its inception, the renewable energy program in India has been driven by policiesand promotional measures initially framed by MNRE and subsequently by the respective state governments. The promotional measures available to renewable energy projects comprise a wide range of fiscal and financial incentives, including soft loans, concessional customs duties, exemption from excise duty, tax holidays, and accelerated depreciation benefits.

Data Collection: Both primary as well as secondary data was collected for the research. The primary data was collected through focused interviews with representatives of companies that have experience of CDM projects in Ahmednagar. Experts and informants were consulted to identify potential for investment in renewable energy resources projects in Ahmednagar District. Secondary data was collected through literature survey of available scientific and non-scientific articles, case studies and reports about the subject.

RESULTS AND DISCUSSION

Clean Development Mechanism: It is a Market based approach that calls for private companies in the developed world to invest in low-GHG projects in developing countries as a means to achieve their GHG emission reduction targets. CDM has three objectives:-

Assist Annex I parties meet part of their commitments under article 3 of the Kyoto Protocol; Assist non-Annex I parties to achieve sustainable development; and Promote the attainment of the objective of the UNFCCC (through GHG emission reduction).

Carbon Project: A carbon project refers to a business initiative that receives funding because of the cut the emission of greenhouse gases (GHGs) that will result. To prove that the project will result in real, permanent, verifiable reductions in Greenhouse Gases, proof must be provided in the form of a project design document and activity reports validated by an approved third party in the case of Clean Development Mechanism (CDM) or Joint Implementation (JI) projects.

Carbon Credits: The primary purpose of the Kyoto Protocol was to make developed countries pay for their ways with emissions while at the same time monetarily rewarding countries with good behaviour in this regard. Since developing countries can start with clean technologies, they will be rewarded by those stuck with 'dirty' ones. This system poises to become a big machine for partially transferring wealth from wealthy, industrialised countries to poor, undeveloped countries. A CER or Carbon Credit is defined as the unit related to reduction of 1 tonne of CO2 emission from the baseline of the project activity. Let us say that India decided to invest in a new power station, and has decided on a particular technology at the cost of X crore. An entity from an industrialised country (which could even be a company) offers to provide India with slightly better technology, which costs more (say Y crore), but will result in lower emissions. The industrialised country will only pay the incremental cost of the project – viz. Y minus X. In return, the 'investing' country will get certified emission reductions" (CERs), or credits, which it can use to meet its Kyoto commitment.

Analysis of different renewable energy resources revealed the following

Wind power generation projects: Among the renewable power resources available in India, wind energy is a promising source for further development. The country has 45,000 MW of gross potential and 13,000 MW of technical potential for wind power. To accelerate the promotion of renewable energy development in Maharashtra, Maharashtra Electricity Regulation Commission (MERC) will require licensed distributors operating in the state to procure 3% of total energy input from renewable energy sources in 2030, with a 1 percentage point increase each year until 2020 to reach 6% of total energy input. Companies which are licensed distributors could undertake wind power projects to comply with the requirement. The CDM project M/s Bajaj Auto Ltd. (BAL) located at SupaTalukaParner, Ahmednagar District was studied. The estimated activity is expected to generate an average of 40 MU of electricity during each year of the crediting period. The emission rate of the selected baseline grid (Maharashtra state – western grid) where the project activity will occur would displace fossil fuel based electricity generation to the extent of the electricity generated by this wind project. Therefore, the total emitted emission reduction

achieved during the 10 year crediting period aggregating to 3, 83,881 tons of CO2.

Bio-fuel projects: The production and use of biofuels have been carried out on large scale in rural areas of Ahmednagar District. Surging investments in biofuels production are being driven by a variety of factors, that include the development of more efficient conversion technologies, the introduction of sound new government policies, growing international trade and of course, the rising price of oil.Underlying the growing commitment of governments to biofuels development is the desire to find new markets for farmers and their products - thereby providing employment, enhancing energy security and reducing emissions of carbon dioxide and other gases that are contributing to global warming. Bioenergy could in comparison to fossil fuels drastically reduce greenhouse-gas and air emissions if managed adequately.

Urban waste management Projects: Not much has been done on the urban waste management projects in Ahmednagar. Governments and local agencies alone may find difficulty to cope with the growing demand for waste management services as these services are cost intensive. Thus, private investment, as an alternative supplement to government efforts in this sector is increasingly being thought of. This has resulted in modeling Public Private Partnerships (PPP) in providing waste management services to consumers. PPP recognizes that both public and private sectors have certain advantages relative to the other in the performance of specific tasks. By allowing each sector to do what it does best, public services and infrastructure can be provided in the most economically efficient manner. PPP introduces private sector capital, brings in expertise and delivers public services. The nature of such partnerships is characterized by the sharing of investment risks, responsibilities and rewards between the public and private partners.

Solar energy projects: Solar energy projects are not yet developed in Ahmednagar. For large-scale promotion of the technology, facilities should be made available to quickly assess the economics of a building's solar potential using each system.

****

Study of thermal and economic impacts of absorber colour variations and selective surface use; and designing of back-up heating systems, low-cost, low pressure, long-life, and storage tanks with integral air-to-water heat exchangers, are some other pressing needs. Energy savings from concrete collector system installation on a fraction of the total building stock can contribute substantially to the total energy needs of the house at competitive costs. For many home and commercial building buyers, aesthetics is a primary consideration in the purchasing decision. Traditional looking homes and commercial buildings continue to have broad appeal in the real estate market. So designing such houses, which mimic the existing appearance of traditional roofing systems, should help their diffusion in the market. Companies can come forward to adopt the technology and contribute in the dissemination of these systems.

Conclusion

International trade in greenhouse gas reductions is now a large and rapidly growing market. Motivated by requirements of the Kyoto Protocol and regional programs, and by voluntary initiatives, governments, private companies, and individuals have collectively committed billionsof dollars to buy emission reductions. International carbon markets have resulted in new capital flows that are supporting sustainable energy and other climate protection activities. The voluntary carbon market is growing rapidly. Emerging standards could help to drive the market further, Reduction in carbon emission by Indidviduals carbon market participation can provide asubstantial boost to sustainable energy activities. The carbon market, being the most developed ecosystem service market, is increasing every year. Some observers project that it will increase to US$10-40 billion by 2020……the future for Trading in Ecosystem is thus bright.

REFERENCES

Clean Development Mechanism and Carbon Trading in India by Jitendra Kumar Singh

Implications: A case study of India., IGIDR .

Parikh J., Panda M., MurthyN.S.(1994).Consumption pattern differences and Environmental