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# CHALLENGES OF CARBON SEQUESTRATION IN INDIA: A LEGAL PERSPECTIVE

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Meenakshy S Dev, Amity Law School, Noida

## ABSTRACT

The current uproar about carbon dioxide emissions and its eventual threat in climate change has been a concern in almost all countries. Various methods have been put forth to reduce carbon dioxide emissions or presence in the atmosphere and one of which is carbon sequestration. India being the third largest emitter of carbon dioxide, it is relevant to introduce effective steps or actions to cut down the carbon emission. Various steps have been adopted by countries globally to reduce carbon emission. Carbon sequestration is the process wherein carbon dioxide is captured, stored and removed from the atmosphere so as to make it carbon free. Terrestrial sequestration is an economical and adaptable approach in India because of its soil nature. India is undoubtedly putting efforts in bringing about a significant change in the current scenario but for proper implementation of these actions, a legal backing is indispensable. The main objective of the paper would be to discuss about the need of legislative framework and how it might have a significant shift in approach towards reduction of carbon dioxide emissions. To address the objective, I will be discussing about the biological methods of carbon sequestration with special emphasis on terrestrial sequestration, the regulatory frameworks of carbon sequestration globally and the various steps adopted by countries towards reduction in carbon emission and the challenges faced by our nation in carbon sequestration. In addition to this since no such legal framework is adopted by India, we will also be discussing why carbon sequestration needs legal intervention.

**Keywords:** Climate change, environment, carbon emission, carbon sequestration, carbon capture

## INTRODUCTION

Climate change has been a topic of concern since the beginning of the 20<sup>th</sup> century. However, currently, the situation is escalating at an alarming rate. Mankind has undoubtedly shown its excellence towards science and developments, but its impact on the environment is left unquestioned. The necessities of man such as electricity, transportation and other means of livelihood are met by burning fossil fuels and coal which in turn let adverse greenhouse gas emissions which are detrimental to mankind. Such emissions not only affect mankind, but plants and animals which are part of the environment too. The irrational activities of man, without proper measures and control have made the situation close to irreversible. One such greenhouse gas which is environmental unfriendly is Carbon Dioxide (CO<sub>2</sub>).

Natural greenhouse gases are those which are vital to the environment. These gases trap the heat from the sun keeping the Earth warmer. However, enhanced greenhouse gases are detrimental as the concentration goes higher. Globally, India ranks 3 in carbon emitters list preceding US, and China. The Paris Agreement is a legally binding document which was adopted at COP21. It aims at mitigating emission reduction and to limit the increase to 1.5 degree Celsius. As per Article 3 of the agreement, the state parties who have ratified to this agreement, shall make measures and design a plan to reduce the emissions that cause climate change.<sup>1</sup> India has ratified to the agreement and is indeed putting in measures to reduce carbon emissions. India has decided to reduce the emission intensity of its GDP by 33% to 35% by 2030 from 2005 levels.<sup>2</sup>

Various techniques have been used in reduction of carbon dioxide emissions and one of which is carbon sequestration. The technique basically involves removing carbon dioxide emissions and sequestering them in deep geological formations for a very long time. It is one of the most promising technologies and it enables us to use inexpensive fossil fuels which are essential to our day-to-day life but helps in reduction of greenhouse gases as well.<sup>3</sup>

In this article we will be discussing about Carbon Sequestration and its categories and how and why terrestrial sequestration is effective over other sequestrations. This will give us a deep

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<sup>1</sup> Paris Agreement, art. 3

<sup>2</sup> India's Intended Nationally Determined Contribution: Working Towards Climate Justice, *available at*: <https://www4.unfccc.int/sites/submissions/INDC/Published%20Documents/India/1/INDIA%20INDC%20TO%20UNFCCC.pdf> (Last visited on September 27, 2021).

<sup>3</sup> Alexandra B. Klass and Elizabeth J. Wilson, Climate Change and Carbon Sequestration: Assessing a Liability Regime for the Long-term Storage of Carbon Dioxide, 58 EMORY L.J. 103 (2008).

insight into what we need to particularly concentrate upon to ensure that the technique is viable or not. We will be focusing on the various regulatory framework for Carbon Sequestration and how it is being implemented in India and what measures have been taken by policy makers in combating climate change and carbon sequestration. We will also be elucidating on the key legal issues and why an effective law or statute is necessary to enforce the same.

## **CARBON SEQUESTRATION- TECHNIQUES**

Carbon Sequestration is the process of transferring and securely storing CO<sub>2</sub> in long lived pools so as to not allow it to enter the atmosphere. The carbon dioxide is injected into deep geological formations at about approximately one kilometer deep and this helps in trapping the CO<sub>2</sub> from emitting into the atmosphere.<sup>4</sup> Several options are available in case of carbon sequestration into pools. The two broad categories of carbon sequestration are (i) Abiotic sequestration and (ii) Biotic Sequestration. Abiotic sequestration includes techniques such as leaching, chemical scrubbing, mineralization, geologic injection etc. Biotic sequestration includes oceanic sequestration and terrestrial sequestration. CCS is viewed as a critical climate protection technique for coal-rich countries like India, with the ability to reduce CO<sub>2</sub> emissions significantly more than any other technology currently available.<sup>5</sup> The three steps involved in CCS are Capture, Storage and sequestration wherein carbon is separated from other gases and is compressed and transported through pipelines to a geological storage site where it is injected deep into rock formations which are at a depth of 1km or so.<sup>6</sup>

Terrestrial sequestration has one of the strongest impacts in biotic sequestration and helps in absorbing more CO<sub>2</sub> and thereby helping in reduction of CO<sub>2</sub>. Land, trees, soil, the type of vegetation etc are parameters for carbon sinks.<sup>7</sup> The easiest and convenient method to sequester carbon dioxide from entering the atmosphere is by planting more trees and by preserving them.<sup>8</sup> This is one of the most natural methods and all man has to do is save trees and plant more. Forests covers approximately near 31% of the world and by preserving these and by methods such as reforestation one can help in achieving the Carbon emission reduction goal. It is unfortunate to see a lot of forest being cut down that too at a rate which is alarming. In order

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<sup>4</sup> Rattan Lal, "Carbon Sequestration" 363 *Phil. Trans. R. Soc. B* 819 (2008).

<sup>5</sup> Abhishek Gupta & Akshoy Paul, "Carbon capture and sequestration potential in India: A comprehensive review" 160 *Energy Procedia* 852(2019).

<sup>6</sup> *Ibid.*

<sup>7</sup> Janardan Kambale and Vinod Kumar Tripathi, " Biotic and Abiotic processes as a carbon sequestration strategy", 5 *Journal of Environmental Research and Development* 250 (2010).

<sup>8</sup> *Ibid*

to cut down atmospheric carbon dioxide levels, terrestrial sequestration is a method which is a must follow as through this process the level of organic carbon in soil increases.<sup>9</sup> Agriculture is a great means to sequester carbon as soil absorbs carbon in huge quantities and is a natural way of carbon capture. This can be done by not disturbing the soil and by increasing the plant animal inputs to the soil. However, the extent and how permanently the soil can hold carbon is still not clear.<sup>10</sup>

A variety of methods are available for terrestrial sequestration some of which are reforestation, tilling practices, restoring mined lands etc. Forests have high capacity to capture carbon when compared to grassland and therefore planting more trees will definitely help reduce excess carbon emissions into the atmosphere.<sup>11</sup>

## **GLOBAL STATUS OF REGULATORY FRAMEWORK FOR CARBON EMISSION REDUCTION**

Reaching a net zero target of carbon emission has been the agenda for many countries to combat climate change and also in ensuring that the global warming is within 2C by 2100.<sup>12</sup> Recent developments of carbon sequestration in certain countries are discussed below.

### **New Zealand**

New Zealand is one of the countries to take genuine and effective steps towards mitigating climate change and has put serious efforts in formulating a legislation which has a legal binding on achieving the 1.5 C target of global warming. The Act is just an amendment to the existing Climate Change Responses Act, 2002 and is known as Climate Change Responses (Zero Carbon) Amendment Act.<sup>13</sup>

The Amended Act sets forth to achieving the target of reducing carbon emissions by 2050 and the Act also proposes to have an Emission reduction plan and an emission budget plan. The Act has added Parts 1A to 1C wherein Part 1A talks about the establishment of a Climate Change

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<sup>9</sup> *Ibid.*

<sup>10</sup> Carbon Sequestration Potential on Agricultural Lands: A Review of Current Science and Available Practices, available at: [https://sustainableagriculture.net/wp-content/uploads/2015/12/Soil\\_C\\_review\\_Kane\\_Dec\\_4-final-v4.pdf](https://sustainableagriculture.net/wp-content/uploads/2015/12/Soil_C_review_Kane_Dec_4-final-v4.pdf) (Last visited on October 13, 2021).

<sup>11</sup> Sheikh AQ, Skinder BM, Pandit AK, Ganai BA “Terrestrial Carbon Sequestration as a Climate Change Mitigation Activity” 2 *Journal of Pollution Effects and Control* 2 (2014).

<sup>12</sup> *Id.* at 5

<sup>13</sup> Mehr Gill, “Explained: What is New Zealand’s Zero Carbon Law, what does it aim to achieve?” *The Indian Express*, November 10, 2019.

Commission, the purposes of setting of such a Commission, the members, the process of appointment of members and so on. Importantly it also mandates the Commission to prepare and submit a report whenever asked by the Government and on receipt of the report the matters which are relevant will be considered. Part IB talks about Emission Reductions and the target for 2050. Further it states that there should be an emission budget, role of commission to advise on emission budget, publication of emission budget, revision of emission budget etc. The committee is also entitled to monitor and report as to whether the target is being achieved or not.

In addition to the legislation passed New Zealand has also come with various schemes and projects which help in Carbon emission reduction and storage of carbon. Some of which are Carbon Neutral Government Programme wherein the government organizations are aimed to be made carbon neutral by 2025. In response to climate change another scheme that the government came up with is the Carbon Neutral Electrical Energy wherein 90% of electricity will be produced from renewable sources and the target is set to be achieved by the year 2025.<sup>14</sup>

Some of the other strategies namely are Carbon Neutral stationary energy which is aimed to be achieved by 2030 and Carbon neutral transport and energy which is aimed to be achieved by 2040.

## Denmark

Denmark has been proving to be one of the role models in green energy. The added benefit of Denmark is its topographic nature and its geographical disposition.<sup>15</sup> Denmark is blessed to develop renewable energy sources through which it can reduce a huge amount of carbon emission. Denmark is one of the first countries to implement the carbon tax system and energy taxes helped the country in energy transition.<sup>16</sup> Even in the midst of the Covid 19 crisis, the country has come up with strategies and plans which help boost decarbonization ambitions. The Country has also come with a Climate Act which was passed in June 2020 and this Act

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<sup>14</sup> David Parker, *Carbon Neutral Electricity by 2025*, Carbon Neutral Electricity in New Zealand held on Victoria University Pipitea Campus, Wellington and 22<sup>nd</sup> February 2008, available at: <https://www.beehive.govt.nz/speech/carbon-neutral-electricity-2025> (Last Visited on 10<sup>th</sup> October 2021).

<sup>15</sup> Thibault Menu, "Denmark: A Case Study for a Climate-Neutral Europe", *Études de l'Ifri*, Ifri, April 2021, available at: [https://www.ifri.org/sites/default/files/atoms/files/menu\\_denmark\\_climate\\_neutral\\_europe\\_2021.pdf](https://www.ifri.org/sites/default/files/atoms/files/menu_denmark_climate_neutral_europe_2021.pdf) ((Last Visited on 10<sup>th</sup> October 2021).

<sup>16</sup> *Ibid.*

will help it reduce greenhouse gas emissions such as carbon dioxide reduce by 70% in the year 2030.

Considering the Paris Agreement, the Climate Act is aimed to achieve the long term goal of being carbon neutral by the year 2050.<sup>17</sup> A climate action plan is also mandated by the Climate Act so that the Government can have a track of the plan every five years until they reach the target. One of the notable features of the Act is that it has an international perspective.<sup>18</sup> As per the Act, an annual report is to be submitted explaining the climate status and how the efforts of Danish Government have a positive impact on other nations.

## France

France is one of the first European countries to have passed a legislation with regard to carbon neutral law known as the Law on Energy and Climate in November 2019.<sup>19</sup> France had come up with the long term low emission development strategy which is known as the ‘National Low Carbon Strategy’ wherein the country had set the roadmap as to how it was going to be carbon neutral by the year 2050. However, the updated plan of 2020 is much more effective as it requires the carbon emissions to be lowered by one sixth levels of 1990. In order to achieve this target the country has come with some key strategies and some which are to fully decarbonize by the year 2050 by depending on biomass resources, geothermal energy and by using electricity which is free of carbon.<sup>20</sup> Another strategy is to sequester carbon in natural carbon sinks such as Forests. To accomplish this strategy, the country is trying to safeguard and protect forests and is helping promotes methods like Carbon Sequestration.<sup>21</sup> The country has introduced carbon budget so as so keep a check on the carbon emission.

## Japan

Japan has pledged and aimed to stave off carbon emissions and attain carbon neutrality by the year 2050. In fact, Japan has and is adapting various plans and strategies in achieving this target. The country has also decided to come up with negative emission technologies for carbon

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<sup>17</sup> Demark’s mid century Long Term Low Greenhouse Gas Emission Development Strategy, *available at*: [https://unfccc.int/sites/default/files/resource/ClimateProgramme2020-Denmarks-LTS-under-the%20ParisAgreement\\_December2020\\_.pdf](https://unfccc.int/sites/default/files/resource/ClimateProgramme2020-Denmarks-LTS-under-the%20ParisAgreement_December2020_.pdf) (Last Visited on 10<sup>th</sup> October 2021)

<sup>18</sup> *Ibid.*

<sup>19</sup> Bate Felix, “France sets 2050 carbon neutral target with new law”, *Reuters*, June 28 2019, *available at* <https://www.reuters.com/article/us-france-energy-idUSKCN1TS30B> (Last Visited on October 12, 2021).

<sup>20</sup> Ministere De La Transition Ecologique Et Solidaire, “National Low Carbon Strategy” 5 (2020)

<sup>21</sup> *Ibid* P20.

sequestration. One of the notable measures is that Japan has decided to come up with amendments on the Promotion of Global Warming Countermeasures Act. In the amendment, the fundamental principles in the light of Paris Agreement will be established and steps as to how to achieve carbon neutrality by 2050.<sup>22</sup> This will ensure a legal basis and also help in ensuring proper monitoring. The country has also decided to add carbon pricing scheme which will act as a measure towards achieving the target.

## **India**

India being world's one of the fastest growing economies, development is something that cannot be compromised. However, it is not practically possible to completely ignore the fact that we are world's third largest emitter of greenhouse gases. Major emissions are from energy sectors, transportation, industrial processes etc. India has not come up with any legal framework to combat climate change or reduce carbon emissions in line with Paris Agreement. Although there is no explicit Climate Change Act or a legislation to control emission of greenhouse gases, India has a wide variety of national policies on preservation of environment which includes, the Forest (Conservation) Act in 1980, Air Prevention and Control of Pollution Act, 1981, Environment Protection Act, Factories Act, 1948, etc. Apart from all these Acts, the Government is conducting assessments and has come with various plans to tackle climate change.

Indian Climate Change Assessment Network is a network formed by the Government to take assessments on climate change. More than 100 research institutions are assigned to study the climate change and its impact on the environment.

In order to carry out terrestrial sequestration, it is necessary that an amendment in the Forest Conservation Act be made which is in line with the Paris Agreement and helps in attaining carbon neutrality by 2050. Since forest covers can act as carbon sinks and help in carbon sequestration, forests need to be preserved.

## **CHALLENGES OF CARBON SEQUESTRATION IN INDIA**

Considering the war we are against climate, there are only few ways to combat the same and one of which is carbon sequestration. Either we have to reduce the use of fossil fuels or we have to come with technologies which can help cut down carbon emissions. Carbon

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<sup>22</sup> Ministry of Environment, Japan, "Achieving Net Zero GHG Emissions by 2050 in Japan" 4 (February 2021).

sequestration is the process of capturing, storing and removing CO<sub>2</sub> from the atmosphere to mitigate the harmful effects of global warming.<sup>23</sup> Sequestration of atmospheric carbon dioxide as organic carbon in the biosphere is gaining much attraction as a potential alternative to reducing greenhouse gas emissions and resulting climate change.<sup>24</sup> Sequestration method is indeed preferred by many countries as storing of carbon in soil and trees is in fact natural. Since decades, researchers have been doing research on whether the soil is suitable for storing carbon and the challenges behind it. It is also pertinent to note that agricultural practices can help overcome a situation where there is CO<sub>2</sub> overshoot.

India being an agricultural country and agriculture being the backbone of our economy, it is very important we boost agricultural practices such as tillage, restoration of land, improved cropping systems etc. This can help improve soil quality and will help in carbon sequestration in a better manner. Agriculture acts as both a source and a sink for greenhouse gas emissions. Agriculture sinks are basically reservoirs which capture carbon from atmosphere through process known as carbon sequestration.<sup>25</sup>

Carbon sequestration in forests and agriculture lands refers to the process wherein carbon dioxide is absorbed by the plants or trees through the process of photosynthesis and is stored in barks, foliage, roots, soil etc. Trees are the largest carbon sinks available because large amounts of carbon can be sequestered depending on the type of soil, cultivation etc.

Considering agriculture and forests covers as one method of carbon sequestration, this is not the only method of sequestering carbon. Other methods include collecting carbon which is released from power plants and in oil and gas fields where a huge pressure is used in extracting of fossil fuels, applying an additional pressure to store carbon in deep embedded geological forms can pose a threat as well.<sup>26</sup> Carbon capture and storage or carbon sequestration is something that is indispensable even though it is expensive and risky. Certain other factors also

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<sup>23</sup> Roger Sedjo & Brent Sohngen, 2012. "Carbon Sequestration in Forests and Soils," *4 Annual Review of Resource Economics*, 127(2012).

<sup>24</sup> Ronald Amundson and Léopold Biardeau, "Soil carbon sequestration is an elusive climate mitigation tool", *115 PNAS* 11652(2018).

<sup>25</sup> Agriculture, climate and carbon sequestration, available at: [https://www.nrcs.usda.gov/Internet/FSE\\_DOCUMENTS/nrcs141p2\\_002437.pdf](https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs141p2_002437.pdf) (Last Visited on October 13, 2021).

<sup>26</sup> Earth shaking consequences of burying carbon, available at: <https://www.climatecentral.org/news/the-earth-shaking-consequences-of-burying-carbon-underground> ( Last visited on October 13, 2021)



pose a challenge to the implementation of carbon sequestration methods such as risk, cost, reliability etc.

In case of implementation of carbon sequestration, it should be taken into account that the same adheres to stringent measures and environmental and social safeguards as it involves negative impacts. Natural methods of carbon sequestration like terrestrial sequestration needs to be done by enhancing forest carbon stocks through promotion of reforestation and afforestation techniques. Restoration of degraded forest lands such as mangroves, peatlands etc are also essential.<sup>27</sup> Environmental Impact Assessment needs to be properly carried out before implementation of Carbon sequestration and the EIA laws have to be efficient in order to assess whether the topography is suitable for carrying out such a process. Public participation also plays a vital role as their consent is necessary before any such activity is to take place.

BECCS is another technique wherein carbon is removed through two steps, one is where biomass is converted into various forms such as electric, heat, gas etc and through Carbon Capture and Storage process it is transported and stored in geological forms.<sup>28</sup> This could be an appropriate method if carried out safely.

The other notable challenges are that since there is no proper regulatory framework in India for the carbon sequestration, it would be tough to analyze the risk and liabilities involved in this process. In case of carbon leaks, who would be liable and the costs to be borne in case of such an incident is not yet defined. Another challenge is that, since there is lack of research and information about carbon sequestration as a whole, assessment as to how to store carbon is vague.<sup>29</sup> The other reasons why India has not yet implemented carbon sequestration is due to the non - assessment of storage of the same in geological forms and the cost involved. However, a lot of small scale carbon storage facilities are being run across the country but to overcome such a gigantic issue like climate change, handful efforts might not even do a fraction of the work. Legal challenges arise in each step of carbon sequestration i.e., when we talk about

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<sup>27</sup> Carbon Dioxide Removal, including Carbon Sequestration in natural systems, *available at:* [https://d2ouvy59p0dg6k.cloudfront.net/downloads/wwf\\_1\\_5c\\_position\\_paper\\_carbon\\_dioxide\\_removal\\_including\\_carbon\\_sequestration\\_in\\_natur\\_1.pdf](https://d2ouvy59p0dg6k.cloudfront.net/downloads/wwf_1_5c_position_paper_carbon_dioxide_removal_including_carbon_sequestration_in_natur_1.pdf) ( Last Visited on October 13, 2021).

<sup>28</sup> BECCS, *available at:* [https://www.american.edu/sis/centers/carbon-removal/upload/icr1p\\_fact\\_sheet\\_beccs\\_181005.pdf](https://www.american.edu/sis/centers/carbon-removal/upload/icr1p_fact_sheet_beccs_181005.pdf) ( Last Visited on October 14, 2021).

<sup>29</sup> An introduction to carbon sequestration from a legal and policy lens, *available at:* <https://www.ikigailaw.com/an-introduction-to-carbon-sequestration-from-a-legal-and-policy-lens/> ( Last visited on October 14, 2021).

capturing of carbon, then we should consider the health and safety, property issues etc and in case of storing it, there has to be proper monitoring and verification.

Considering the above challenges, a Legislation or an amendment in an existing law is very much essential to achieve the target of reducing carbon emission into the atmosphere. A legal framework which is principled, efficient and comprehensive will always help in not crossing the line. Without efficient laws, there would be no proper guideline as to how to cut down carbon emission. In order to assess the risks and liabilities involved and the consequential costs, it would be near to impossible in achieving the target. Since it is very clear that bringing up a new law doesn't happen in a vacuum, an amendment in any of the current legislations should be sufficient. If a new law is created there could be unexplainable consequences, uncertainties etc which could create tensions.

Since there is no proper research on how well carbon can be captured and stored in geological forms or in wells, one should be very well aware of the legal liabilities and environmental degradation in case of leakages. There are uncertainties on how carbon might act when it reaches surface and how detrimental it can be to the environment, health and property. If we aren't quite sure about the liability part how can we compensate for the damage in the event of such a risk manifestation. Depending on the magnitude of damage, the compensation to victims varies and without a legal framework, its is not possible to provide adequate compensation. There should be stringent regulations and financial assistance in order to address liability issue.

Carbon tax is something that can be introduced to lower the emissions. Entities that emit greenhouse gases or use carbon-based fuels will have an incentive to switch to alternative renewable fuels, invest in technology changes to use carbon-based fuels more efficiently, and adopt practices that would reduce their level of greenhouse gas emissions by taxing every tonne of carbon in fossil fuels or every tonne of greenhouse gas companies emit.<sup>30</sup> As a result, a carbon or greenhouse gas emission tax places a negative value on carbon in terms of tax avoidance.

## CONCLUSION

Carbon sequestration is an effective and indispensable technique and if used rightly it can help humanity to a very huge extent in carbon capturing. India is a developing country and for it to

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<sup>30</sup> *Id.* at 24.

develop industrialization is necessary. Carbon sequestration will help in capturing carbon from industries and storing it deep in geological forms. Many of the developed countries have come with CCS strategies and ways to implement this technology in a huge scale. Most of the countries have developed regulatory frameworks, made amendments in existing laws and has started drafts to implement CCS technology and thereby in helping carbon capture. However, though legislative frameworks have been designed, most countries do not have a well - structured legislation which covers almost all factors and criteria in CCS implementation. But coming up with a legislative framework or design in itself is a major step showing how far a country is ready to go to cut down carbon emission. Most of the countries target year to net zero carbon is by 2050 and in order to achieve such a huge milestone in this short time is achievable if necessary steps are taken. India has implemented CCS strategies, but in small scale which might be of no use at all considering the pollutant emission rate when compared to most of the other countries. In case of terrestrial carbon sequestration, emphasis should be given on planting of more trees and stringent laws on not cutting trees in certain areas which can form a carbon sink will also help to an extent. India being an agricultural land, the soil and topography can be useful in carbon sequestration in a more natural way. But when we talk about CCS implementation in an industry, then when a legislation is created to administer CCS, key elements such as economy and ecology should be prioritized. In addition to that the safety regulations and liability regimes should be emphasized so that in case of a catastrophic event, compensation to the victims can be carried out without much speculation. When it comes to property and liability, without a proper legal framework, it would be unclear as to who owns the property wherein carbon dioxide is injected. Legal amendments depending on the industry or area would be more efficient as it will be less time consuming as to creating a whole new law. Legal framework should be designed in such a way that government is also given responsibility in monitoring and carrying out the process. Laws should also ensure that there is safe transportation of Carbon dioxide as otherwise it could be detrimental in a huge scale. Also carbon tax is a something that can be introduced in all industries where the emission rate is high. This can help cut down emission and moreover, when there is carbon tax, fuel based users will be encouraged to switch to renewable sources to produce energy. Before coming up with a legislative framework, ample research should be conducted and a proper study on the topography, storage facilities, costs, liabilities, risks and other factors be taken into account. India being the third largest emitter of carbon dioxide, immediate steps and measures must be adopted to keep the emission under control and a technology like carbon sequestration should do the job.

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