Climate finance has remained on the agenda of the United Nations Framework Convention on Climate Change (UNFCCC), ever since its formation in 1994 and the Paris Accord, 2015 has renewed the pledge of transitioning to a low carbon economy and mobilizing financial resources for the mitigation of emissions and adapting to climate-resilient development. This tectonic shift to low carbon economies requires funds beyond 'climate finance as usual' to the tune of trillions of dollars. Due to the scarce availability of public and other concessional financial resources, private investors have to be incentivized to scale-up investments for climate action. 2020 has just passed and a new quantified goal will be set up before 2025. Therefore a review is required and this study aims to understand the role of private investments, the constraints faced by private climate investors and the policy solutions for achieving the goals of the Paris accord.

Private Climate finances are directed towards the mitigation and adaptation efforts in response to climate change, technological development of low carbon industries and technological transfers and capacity building efforts to developing countries (UNCC 2015; Semieniuk, et al. 2020). Such large scale investments are needed for which public finances are not sufficient to transform to low emission and building resilience to climate change impacts (Sullivan 2014).

Atteridge (2011) through his study's findings reveal that there is a disparity of private finance investments in adaptation-related sectors than in mitigation related sectors. Private Climate actors are households, non-financial corporations, commercial financial institutions (banks), institutional investors (including asset managers, insurance companies, and pension funds), and a mixture of private equity, venture capital, and infrastructure funds (Climate Policy Initiative, 2019).

The possibility of a constraint in private climate finance in developing countries is determined by the interplay of relative investment needs and access to finance. Other determining factors are the risk-return profile of mitigation and adaptation investments, policy measures for regulating high carbon investment, the robustness of institutions and organizations responsible for implementing policy, and efficiency of new technologies (Fankhauser, et al. 2015; Sullivan 2014).

The scientific literature on climate investment and climate finance is still very limited and knowledge gaps are substantial. There is no agreement on the definition of private climate finance and the accounting systems of private climate finance are highly imperfect due to which it is difficult to ascertain the current levels of private climate finance (Weikmans & Roberts, 2019). A gap exists in the availability of data from the private sector (Bayer & Urpelainen, 2016; Chawla & Ghosh, 2019). Only very limited model results exist for additional investments and incremental costs to abate CO2 emissions in sectors other than energy supply via energy efficiency. Attention to this perspective would enrich the scientific discussion (Gupta, et al. 2014). CGE models can fill this gap as they are useful for analyzing the potential impact of economic consequences of attempts to reduce carbon dioxide (CO2) emissions via carbon taxes by doing a sector-by-sector analysis. Knowledge about enabling environments for effective deployment of climate finance in any country is insufficient and there is no general understanding of the ways to mobilize private investment and its potential in any country since they differ by country and by investment (Gupta, et al. 2014).