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Government climate roadmap: Economic growth implications of green growth action in the decision making process

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Existing climate change mitigation actions and further thrust towards an effective government climate roadmap is without a doubt a fundamental need for any country after the era of the COP21 commitment. The rationality behind the commitment undoubtedly is necessary and it is important to examine what is suitable for developed and developing nations to realize for a long-run optimal climatic policy. This study critically evaluates two proposals to explore the societal cost to bring down the climatic degradation by: The COP21 declaration and optimality concern for the further decision-making process by utilizing a 'dynamic integrated model of climate and the economy'. The study findings enhance current knowledge in setting up a long-term national climate change mitigation policy framework in response to country specific national policy on climate change, filling up the research gap by finding the distribution of impacts on the costs of different climate controlling options and offering policy makers an attractive alternative to mitigate the climate change thrust with precise knowledge of the overall impacts of the adaptive measures that support sustainable future strategies. Although the ultimate target group considered in this study is principally policy makers, a wide range of research communities and organizations related to climate change studies are expected to benefit due to the nature of the scientific outcomes.

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Electrochromic performance of a novel polymer based on carbazole

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The compound containing carbazole and thiophene, named as B1 was synthesized with 4- (9H-carbazol-9-yl) phenol and 3, 4-dibromo thiophene. Additionally, the electrochemical polymer of B1 was synthesized and coated onto an ITO-glass surface via electrochemical oxidative polymerization. The electrochemical synthesis of the polymer was performed both in 0.05 M LiClO₄ supporting electrolyte in AN/BF₃EtE (1:1, v/v) and an AN/LiClO₄ solvent/electrolyte solution. The spectro electrochemical and electrochromic properties of this polymer were also investigated for two electrolyte solution systems. The switching ability of this polymer was measured as the percent transmittance (%T) at its point of maximum contrast. According to the electrochromic measurements, the synthesized polymer had a blue color when it was oxidized, and also when it was reduced, it had a transparent color. Additionally, redox stability measurements indicate that the polymer had a high stability and it could be used to produce new polymeric electrochromic devices. The *in situ* polymerization kinetics related to the synthesized polymer was performed. According to this process, a constant potential of +1.2 V was applied to the polymer film by performing an absorbance measurement for per 10s. resultantly, it can be said that it is a good candidate for electrochromic devices (ECDs) applications. Additionally, it is suitable for the electrochromic display with relatively low potential (+1.2 V) due to the switching ability of this polymer.

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