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Advanced Biofuels and Circular Economy

Technoeconomic, Socioeconomic, and Environmental Implications

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CHAPTER 3

Assessing Risks in the Circular Economy of the Advanced Biofuel Industry

Suhail Ahmad Khan and Mohd. Abdul Muqeet Maaz

3.1 Introduction

The biofuels industry is demonstrating to be a significant component toward the drive for renewable energy sources, and can potentially reduce fossil fuel usage and its environmental effects. With the current worldwide changes in climate and substantial increase in demand for energy needs, switching to renewable energy sources is essential. Biofuels are produced from organic raw materials including plants, agricultural residues, as well as algae, which makes them a feasible option to replace conventional fossil fuels. Additionally, it helps in decreasing the greenhouse gas emissions, enhancing energy security and contributing to sustainable development. Thus, biofuels are often viewed as an integrated part of the strategies

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