

1. Record Nr.	UNINA9910886095803321
Autore	Kumar Sachin
Titolo	Clean Energy Transition-via-Biomass Resource Utilization : A Way to Mitigate Climate Change // edited by Sachin Kumar, Suresh Sundaramurthy, Deepak Kumar, Anuj K. Chandel
Pubbl/distr/stampa	Singapore : , : Springer Nature Singapore : , : Imprint : Springer, , 2024
ISBN	981-9763-21-5
Edizione	[1st ed. 2024.]
Descrizione fisica	1 online resource (327 pages)
Collana	Green Energy and Technology, , 1865-3537
Altri autori (Persone)	SundaramurthySuresh KumarDeepak ChandelAnuj K
Disciplina	333.7
Soggetti	Energy policy Energy and state Bioclimatology Bioremediation Renewable energy sources Energy Policy, Economics and Management Climate Change Ecology Environmental Biotechnology Renewable Energy
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	1. Sustainable utilization of biomass resources -- 2. Biomass resources and potential for its applications in energy and platform chemicals with 3G biorefinery approaches -- 3. Agro-forestry biomass as a potential bioresource for climate change mitigation -- 4. Vegetable oil seeds as biomass resource for potential applications in biofuel and biomaterials -- 5. Optimization of Co-digestion of fish waste for methane generation and utilization of slurry for organic farming.
Sommario/riassunto	This book highlights clean energy transition via sustainable utilization of biomass resources, viz. forestry, agriculture, agroforestry, grassland, and seaweeds to climate change mitigation. Bioresources have tremendous potential to mitigate global warming. Also, biomass is

expected to play a multifunctional role including food production, source of energy and fodder, biodiversity conservation, and yield of goods and services to the society. It brings together perspectives of various communities involved in the research and regulation of bioenergy deployment in the context of climate change mitigation. The book presents the way forward to policy makers and stakeholders involved with bioenergy development. This development may be directive challenges in the transport sector where options such as hydrogen and electric vehicles relying on hydro, wind, and solar PV will require decades to become established on a substantial scale. Furthermore, meeting ambitious climate change targets will also require environment-friendly fuels in air and marine transport where no alternative to biofuels is currently available. The process design-via-onion model for sustainable utilization of biomass resources is also one of the most important subjects of the book. This book includes state-of-the-art approaches on bottlenecks and circular economy analysis for biomass energy use to reduce climate change and sustainability frameworks to guide bioenergy development.
