

## REFERENCES

- Adorna, J., & Smith, R. (2020). Coconut shell biochar production and environmental benefits. *Renewable Energy*, 45(2), 134-145.
- Adorna J, Borines M, Dang VD, et al. (2020) Coconut shell derived activated biochar – manganese dioxide nanocomposites for high performance capacitive deionization. *Desalination* 492: 114602.
- Abubakar, I., et al. (2022). Market Competition and the Viability of Biomass Charcoal in Indonesia. *Sustainable Production and Consumption*, 36, 1143-1153.
- Ali, S., Kumar, P., & Tan, L. (2022). Circular economy through coconut waste utilization. *Journal of Environmental Sustainability*, 30(3), 120-135.
- Ananda, R. (2024). *Pengembangan Industri Arang Tempurung Kelapa di Wilayah Indonesia: Dampak Ekonomi dan Sosial*. *Jurnal Ekonomi Berkelanjutan*, 12(2), 45-59.
- Arief, R. K., Armila, A., Liswardi, A., Yahya, H., Warimani, M. S., & Putera, P. (2023). Coconut Shell Carbonization Process Using Smokeless Kiln. *Journal of Applied Agricultural Science and Technology*, 7(2), 82–90.
- Atienza AH, Orcullo J, Salamat C, et al. (2020) Coconut shell feedstock based top lit updraft gasifier for biochar and heat cogeneration. *Journal of Physics: Conference Series* 1519: 012014.
- Bio Energy Consult. (2023). *Energy potential of coconut biomass*. Retrieved from <https://www.bioenergyconsult.com>
- Central Statistical Agency. (2021). *Statistics of Indonesia Manufacturing Industry 2021*.
- Chen, Y., & Zhang, X. (2023). *Coconut Shell Charcoal Production and Sustainability: Impacts on Local Economies and Carbon Footprint*. *Renewable Energy Insights*, 29(4), 220-235.

- Das, S., Singh, B. P., & Biswas, B. (2020). The potential of coconut shell biochar in improving soil carbon sequestration and reducing greenhouse gas emissions. *Agriculture, Ecosystems & Environment*, 301, 107031. doi:10.1016/j.agee.2020.107031
- Environmental Protection Agency (EPA). (2022). *Methane Emissions and Climate Change*.
- Ferrer, J. R., & Ranasinghe, R. (2021). *Renewable Energy from Waste: A Business Model for Sustainable Transformation*. *Journal of Environmental Management*, 280, 111-119.
- Ferrer, L., & Ranasinghe, P. (2021). The impact of biomass energy on rural employment and economic sustainability. *Journal of Sustainable Business*, 12(4), 85-97.
- Fernandes, M. R., Pereira, E. I., & Novotny, E. H. (2021). Coconut shell biochar as a tool for long-term carbon sequestration and soil improvement: A study in tropical agricultural systems. *Environmental Management*, 67(3), 539-551. doi:10.1007/s00267-021-01431-9.
- Gathorne-Hardy, F., & Mangkuto, S. (2021). Barriers to the Adoption of Sustainable Biofuels: A Study of the Coconut Charcoal Market in Indonesia. *Renewable Energy*, 175, 1026-1034.
- Glowing Charcoal Indonesia. (2023). The Impact of Whole Coconut Exports on Coconut Shell Scarcity and Indonesian Charcoal Briquette Industry. Retrieved from <https://glowingcharcoal.com/impact-of-whole-coconut-exports-on-coconut-shell-scarcity/>
- Hanapi, F. (2022, July 31). A Peek into the Potential of Environmentally Friendly Coconut Shell Charcoal Briquettes. Antara News.
- Handoko, A. (2024). *Pasar Energi Terbarukan di Asia Tenggara: Peluang dan Tantangan Arang Tempurung Kelapa*. Jakarta: Pustaka Energi Indonesia
- Haryono, T., & Setiawan, D. (2022). Market dynamics of coconut shell charcoal briquettes in Indonesia. *Journal of Sustainable Energy*, 11(3), 45-59.

- Hasan, R., & Harahap, R. (2022). Utilization of Biomass as an Alternative Energy Source in Indonesia: Challenges and Opportunities. *Renewable Energy and Sustainable Development*, 9(2), 134-149.
- Hoang, L. N., & Hartley, M. (2022). *Building Eco-Friendly Energy Ventures: Key Partnerships and Community Engagement*. *Journal of Sustainable Business*, 45(3), 341-359
- International Energy Agency. (2023). World energy outlook 2023. IEA. <https://www.iea.org/reports/world-energy-outlook-2023>
- IRENA. (2021). Renewable Energy and Jobs – Annual Review 2021.
- Jalil, M., & Abdullah, T. (2022). Circular economy and waste valorization: A case study of coconut shell-based products. *Journal of Environmental Economics*, 14(3), 76-89.
- Kirchherr, J., Reike, D., & Hekkert, M. (2021). Conceptualizing the circular economy: An analysis of 114 definitions. *Resources, Conservation & Recycling*, 168, 105382.
- Kementerian Lingkungan Hidup. (2024). *Laporan Tahunan: Pengurangan Emisi Gas Rumah Kaca melalui Energi Alternatif*. Jakarta: Kementerian Lingkungan Hidup
- Khuenkao N, Tippayawong N (2020) Production and characterization of bio-oil and biochar from ablative pyrolysis of lignocellulosic biomass residues. *Chemical Engineering Communications* 207: 153–160.
- Kurniawan, D., Chandra, M., & Setiawan, T. (2023). Economic viability of coconut shell charcoal production. *Journal of Bioeconomics*, 12(4), 198-215.
- Kurniawan, H., & Sugiarto, A. (2022). Renewable energy as a catalyst for SMEs in Indonesia: Challenges and prospects. *Journal of Renewable Energy Studies*, 12(2), 67-88.
- Kumar, R. (2021). *Research Methodology: A Step-by-Step Guide for Beginners* (5th ed.). SAGE Publications.

- Kumar, R., et al. (2021). "Sustainable Biochar Production from Coconut Shell Waste: A Comparative Study of Methods in India and Indonesia." *Waste and Biomass Valorization*, 12(1), 243-254.
- Lestari, F., & Nugraha, T. (2020). Technological innovation in the biomass industry: Lessons from Indonesia. *Journal of Cleaner Production*, 125(6), 45-59.
- Lembaga Penelitian Energi Terbarukan. (2024). *Potensi Limbah Tempurung Kelapa untuk Energi Terbarukan: Studi Kasus di Indonesia*. Bandung: LPET.
- Malik, M., & Singh, P. (2020). *Business Models for Green Energy: Cost Structures and Revenue Streams*. *International Journal of Economics and Business*, 12(2), 198-214
- MedCrave. (2023). *Green coconut shell as energy biomass: A bibliometric and systematic analysis of scientific literature*. Retrieved from <https://medcraveonline.com/IJH/green-coconut-shell-as-energy-biomass-a-bibliometric-and-systematic-analysis-of-scientific-literature.html>
- Murray, A., Skene, K., & Haynes, K. (2021). The circular economy: An interdisciplinary exploration of the concept and application in a global context. *Journal of Business Ethics*, 166(3), 285-300.
- Nugraha, A., Putri, D., & Santoso, Y. (2023). Green business strategies for coconut shell charcoal: A case for sustainability. *International Business Review*, 17(2), 56-72.
- Nugroho, T. (2018). *Analisis Dampak Penggunaan Arang Tempurung Kelapa terhadap Lingkungan*. *Jurnal Lingkungan dan Energi*, 9(1), 67-81.
- Nugroho, T., & Wiratama, Y. (2022). A case study on the export potential of coconut shell charcoal. *Asian Business Journal*, 15(2), 113-129.
- Ojha, M., & Prasad, R. (2022). Turning Agricultural Waste into Energy: The Case for Coconut Shell Charcoal in Southeast Asia. *Journal of Sustainable Energy Solutions*, 18(1), 75-89. <https://doi.org/10.1002/sses.202>

- Paniagua, R., Sanchez, E., & Cortez, P. (2022). Circular economy potential of coconut shell waste for bioenergy and carbon sequestration in Southeast Asia. *Renewable Energy Reports*, 38, 64-73. doi:10.1016/j.rser.2022.01.013
- Patel, P., & Wijaya, A. (2019). "Charcoal Production from Coconut Shell Waste: A Study of Eco-friendly Practices in Southeast Asia." *Environmental Sustainability Journal*, 13(7), 923-936.
- Pereira, R., & Silva, H. (2021). Carbon footprint analysis of biochar production from agricultural waste. *Journal of Environmental Sustainability*, 10(1), 43-59.
- Prasetyo, B., & Kurniawan, A. (2023). Challenges in biomass energy policy implementation in Indonesia. *Journal of Energy Transition*, 12(1), 78-94.
- Prasetyo, B., & Lestari, A. (2020). Environmental benefits of coconut shell charcoal production in East Java. *Energy and Environment Journal*, 7(2), 34-47.
- Pratama, A., & Nugroho, B. (2021). Coconut Shell Charcoal: A Sustainable Energy Source for Circular Economy. *Journal of Environmental Economics*, 15(1), 45-58.
- Pratama, H., & Suryawan, A. (2022). Energy sustainability in Indonesia: Challenges and opportunities. *Journal of Renewable Energy Studies*, 34(3), 78-95.
- Puziy AM, Poddubnaya OI, Gawdzik B, et al. (2020) Phosphorus-containing carbons: preparation, properties and utilization. *Carbon* 157: 796–846.
- Rahayu, D. (2020). *Sifat Fisik dan Kimia Arang Tempurung Kelapa sebagai Bahan Bakar Alternatif*. Surabaya: Universitas Negeri Surabaya
- Rahayu, D., & Pranoto, A. (2022). Policy implications for biomass energy development in Indonesia. *Sustainable Energy Journal*, 18(1), 45-61.
- Rahayu, D., & Pranoto, Y. (2022). Renewable energy policies and their impact on biomass utilization in Indonesia. *Policy Review Journal*, 9(4), 18-33
- Rahmadani, I., Hasanah, R., & Nugroho, S. (2024). Challenges in scaling up coconut shell charcoal production. *International Journal of Renewable Energy*, 13(1), 28-41.

- Rahman, A., & Kumar, S. (2021). *Economic Viability of Coconut Shell Charcoal as a Sustainable Fuel Source in Rural Communities*. *Journal of Environmental Economics*, 67(3), 178-191
- Rahman, A., & Singh, V. (2021). Methane reduction through agricultural waste conversion. *Sustainable Resource Management Journal*, 18(1), 78-89.
- Rahmawati, L., Santoso, T., & Haryadi, A. (2023). Promoting renewable energy and waste valorization in Indonesia's circular economy framework. *Sustainable Development and Policy Journal*, 18(4), 102-120.
- Rahmawati, N., & Surya, D. (2023). The Role of Biochar in Circular Economy: A Case Study on Coconut Shell Waste. *Journal of Environmental Research*, 19(2), 310-329.
- Ramdani, D., Permana, A., & Susanto, R. (2022). Indonesia's Solar Energy Potential and Its Role in Reducing Fossil Fuel Dependence. *Journal of Renewable and Sustainable Energy*, 34(3), 345-368. <https://doi.org/10.1063/j.rse.2022.103564>
- Republic of Indonesia. (2017). Presidential Regulation No. 22 of 2017 on National Energy General Plan
- Renewable Energy Research Institute. (2024). Environmental impact analysis of coconut shell charcoal production. *Renewable Energy Review*, 28(3), 112-124.
- Riyanto, D., & Nugraha, P. (2023). Economic impact of coconut shell charcoal on rural communities in Indonesia. *Small Business Economics Review*, 12(1), 52-66.
- Ronsse, F., et al. (2020). Production of Biochar from Coconut Shells and its Application in Carbon Sequestration. *Journal of Cleaner Production*, 257, 120532.
- Santosa, B., et al. (2020). Economic Potential of Coconut Shell Charcoal in Job Creation for Rural Communities. *Sustainable Development Studies*, 29(3), 156- 167.
- Sari, D. P., Widodo, S., & Mustofa, M. (2023). The role of circular economy principles in enhancing the competitiveness of biochar production in Indonesia. *International Journal of Sustainable Business and Economics*, 10(1), 45-61.

- Santoso, H., & Widodo, A. (2021). Role of SMEs in coconut shell charcoal production in Indonesia. *Journal of Rural Economics*, 10(2), 67-81.
- Santoso, H. (2024). *Analisis Potensi Energi Terbarukan dari Tempurung Kelapa di Indonesia*. Jurnal Teknologi Hijau, 14(1), 23-35
- Sari, Y., & Rahma, P. A. (2019). Coconut Shell Charcoal: Stable Burning Power and Environmental Benefits. *Journal of Renewable Energy*, 12(3), 245-260.
- Setiawan, H., Putri, R., & Lestari, M. (2020). Circular Economy Implementation in Biomass-Based Industries. *Sustainable Resource Management Journal*, 12(3), 87-102.
- Setiawan, R., Hartono, P., & Lestari, M. (2021). Financial analysis of renewable energy products in Southeast Asia. *Journal of Economic Studies*, 22(4), 89-102.
- Sibarani, C. G. G., Silalahi, S. A., Armayanti, N., Sriwedari, T., & Suharianto, J. (2021). Limbah Tempurung dan Kulit Kelapa Muda Sebagai Alternatif Pengganti Polybag dan Briket Arang Ramah Lingkungan. *Amaliah: Jurnal Pengabdian Kepada Masyarakat*, 5(2), 146-149
- Siregar, A. (2019). *Pengurangan Emisi Gas Rumah Kaca Melalui Energi Alternatif di Indonesia*. Jakarta: Pustaka Alam.
- Sim, T., & Hwan, R. (2021). Eco-friendly alternative fuels: The economic viability of coconut shell charcoal. *Energy and Sustainability Journal*, 8(3), 67-81.
- Smith, J., & Jones, P. (2020). The role of applied research in sustainable business development. *Journal of Business Research*, 115, 105-112.
- Supriyadi, S., & Nursyahbani, F. (2020). "Utilization of Coconut Shells as a Renewable Energy Source in Indonesia: Challenges and Opportunities." *Indonesian Journal of Renewable Energy*, 5(2), 167-179.
- Supriyadi, T., & Nursyahbani, R. (2020). Coconut shell as a renewable energy source in Indonesia: Opportunities and challenges. *Renewable Energy Journal*, 25(3), 213-225.

- Suryadi, R., & Kurniawan, T. (2022). Enhancing coconut shell charcoal production through community training. *Journal of Sustainable Business Practices*, 8(3), 50- 63.
- Susilowati, A., & Setiawan, B. (2019). Dampak Pembakaran Terbuka Tempurung Kelapa terhadap Kesehatan dan Lingkungan. *Jurnal Lingkungan Hidup*, 15(2), 123-135
- Teo, W. L., & Wahab, R. A. (2020). Transitioning coconut husk by-products to biochar. *SpringerLink*, 19(3), 145-156
- Trianingsih, N., & Noor, A. (2021). Valuasi Ekonomi Limbah pada Penjual Es Kelapa di Kecamatan Samarinda Ulu. *Journal of Economy*, 2021, ID 231102.
- Vieira, F., Santana, H. E. P., Jesus, M., Santos, J., Pires, P., Vaz-Velho, M., Silva, D. P., & Ruzene, D. S. (2024). Coconut Waste: Discovering Sustainable Approaches to Advance a Circular Economy. *Sustainability*, 16(7), 3066.
- Widodo, A., & Santoso, B. (2023). The economic potential of biomass energy in rural Indonesia. *Energy Policy*, 39(2), 150-165.
- Wijaya, K., & Sari, D. (2023). Economic and Environmental Benefits of Coconut Shell Charcoal Production. *International Journal of Renewable Resources*, 18(4), 223-240.
- Wong, M.-T., et al. (2023). "Biomass Waste Utilization: Case Study on Coconut Shells in Southeast Asia." *Renewable Energy Journal*, 52(4), 789-801.
- Wood Mackenzie. (2023). Biomass Market Outlook 2023: Pricing Trends and Market Analysis. Reviews price volatility in the biomass market
- Yahya, A. H., et al. (2020).ion of Biochar from Coconut Shells and its Application in Carbon Sequestration. *Journal of Cleaner Production*, 257, 120532.
- Yulianto, R., et al. (2023). Market Accessibility and Awareness in Biomass Energy Alternatives in Southeast Asia. *Energy Economics*, 52, 112411.
- Yuniar, R., & Aulia, S. (2023). Social impact of coconut shell charcoal production in rural areas. *Community Development Review*, 9(3), 135-149.

- Yulfira S., Yulis, P. A. R. (2023). Briket Sabut Kelapa (*Cocos nucifera* L.) sebagai Bahan Bakar Alternatif Berbasis Sumber Daya Alam Lokal. *Flux Physics Journal: Scientific Journal of Physics FMIPA Lambung Mangkurat University* Volume 20, Number 2, June 2023 1819-796X (p-ISSN); 2541- 1713 (e-ISSN).
- Yuliah, Dzikri, M. A., Darmawan, E., & Yuliana, A. (2022). Pemanfaatan Tempurung Kelapa Menjadi Briket Arang Sebagai Bahan Bakar Alternatif. *Indonesian Journal of Engagement Community Services, Empowerment and Development*, 245.