IJARSCT
ISSN (Online) 2581-9429
International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
Impact Factor: 7.53
Volume 4, Issue 6, March 2024

Review on Bio- Bricks

Radha Ajay Powar[1], Abhishek Baburao Patil[2], Aditya Sambhaji Kalake[3], Kiran Anil Chalake[4]
Assistant Professor, Department of Civil Engineering[1]
UG Students, Department of Civil Engineering[2,3,4,5]
D. Y. Patil Technical Campus, Talsande, Kolhapur, India

Abstract: *This paper reviews the utilization of Agricultural waste for making Bio Bricks and other construction materials to reduce burning and disposal problems of Agricultural waste due to increasing Air Pollution and make economic and environment efficient construction material. Agricultural waste burning is a significant source of pollution in India, especially after the harvesting season. Bio-bricks was developed as an alternative and sustainable building material that is made up of agricultural waste. And at the same time will also lead to the reduction of air pollution and create new jobs at the grassroots level. The use of Agricultural waste in construction materials is one of new way to deal with disposal and burning of Agricultural waste. India is home to some of the most polluted cities of the world in terms of its air quality. Data shows that around 20 out of the 30 most polluted cities of the world are in India. So the study provides green building material through Agricultural waste for sustainable development of Bio Bricks. Some additional work in this project can be done which will help environment with decreasing Air pollution by reducing of Agricultural waste. Bio-bricks can be developed as a carbon- negative, sustainable and economically viable material for construction. With the right kind of product development and incentives, it can diversify into numerous products satisfying the needs of an ecologically sensitive future.*

Keywords: sustainable development, lime binder, gypsum, bio brick, agricultural waste, burning of agricultural waste.

REFERENCES

[1]. Asdrubali, F., D'Alessandro, F. and Schiavoni, S. (2015), "A review of unconventional sustainable building Insulation materials", Sustainable Materials and Technologies, Elsevier B.V., Vol. 4, pp. 1–17
[2]. Armstrong, L. (2015), "Building a sustainable future: The hempcrete revolution",Www.Cannabusiness.Com, Available at: http://www.cannabusiness.com/news/science-technology/building-a-sustainable-future-thehempcrete-revolution/ (accessed 4 August 2018).
[3]. Baig, M. (2010), "Biomass: Turning agricultural waste to green power in India", Www.Abccarbon.Com Available at: http://abccarbon.com/biomass-turning-agricultural-waste-to-green-power-in-india/ (accessed 20 October 2018).
[4]. Zhou, Yi1, AmmarA. M.Al Talib2, Jonathan Yung Chun Ee3(2022), Recycling Of High Density Polyethylene Plastics (Hdpe) Reinforced With Coconut Fibers for Floor Tiles.
[5]. Baig, M. (2010), "Biomass: Turning agricultural waste to green power in India", Www.Abccarbon.Com, available at: http://abccarbon.com/biomass-turning-agricultural-waste-to-green-power-in-india/ (accessed 20 October 2018)
[6]. Ip, K. and Miller, A. (2012), "Life cycle greenhouse gas emissions of hemp-lime wall constructions in the UK", Resources, Conservation and Recycling, Elsevier B.V., Vol. 69, pp. 1–9.
[7]. Jain, N., Bhatia, A. and Pathak, H. (2014), "Emission of air pollutants from crop residue burning in India", Aerosol and Air Quality Research, Vol. 14 No. 1, pp. 422–430.
[8]. PHFI and CEH. (2017), "Air pollution and health in India : a review of the current evidence and opportunities for the future", available at: https://www.ceh.org.in/wp-content/uploads/2017/10/Air-Pollution-and-Health-inIndia.
[9]. Awoyera, P. O., &Adesina, A. (2020). Plastic wastes to construction products: Status, limitations and future perspective.CaseStudies in Construction Materials, 12, e00330.

IJARSCT
ISSN (Online) 2581-9429
International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
Impact Factor: 7.53
Volume 4, Issue 6, March 2024

[10]. Rishav Singh1, Somnath Maity2, SanjirAlam Sk.3 (2022), Manufacturing of plastic tiles from waste plastic materials.

[11]. RUSHIKESH MODHE1, YOGESH LONDHE2, PROF. KASHINATH ZAMARE3, PROF.LAXMAN LAHAMGE4 (June 2022), Use Of Plastic Waste for Floor Tiles.

[12]. Singh, R. K., &Ruj, B. (2015). Plastic waste management and disposal techniques Indian scenario. International Journal of Plastics Technology, 19(2), 211- 226.

[13]. Bamigboye, G. O., Ngene, B. U., Ademola, D., &Jolayemi, J. K. (2019, December). Experimental study on the use of waste polyethylene terephthalate (PET) and river sand in roof tile production. In Journal of Physics: Conference Series (Vol. 1378, p. 042105). IOP Publishing.