

EcoPlast - from Fish waste

Shravani Santosh Potdar and Manasi Pritam Zirpe

Students, Department of Computer Science

Sarhad College Arts, Commerce & Science, Katraj, Pune

shravanipotdar05@gmail.com and zirpemanasi@gmail.com

Abstract: *The rapid development of fish processing plants has led to a considerable quantity of fish wastes such as fish heads, bones, skin, tails and scales. The unscientific disposal of fish wastes has led to environmental hazards such as water pollution, bad smell, and disease transmission. However, fish wastes are a potential source of nutrients such as proteins, collagen, and fish oil, which can be converted into valuable products through the application of scientific processing technology. The proposed project of EcoPlast presents a unique and eco-friendly solution to convert fish wastes into valuable products such as nutrient-rich cat food, biodegradable cat toys, eco-friendly pots and vases, fish oil-based candles, and organic fertilizers. The present study aims to design a circular economy model by utilizing waste materials from fish markets and fish processing plants as a source material for producing eco-friendly products. In this study, fish protein hydrolysate is obtained by employing enzyme hydrolysis and used as a nutrient-rich ingredient in producing cat food. Similarly, fish gelatin and fish collagen are employed in producing biodegradable products, fish oil is obtained and purified to produce candles, and organic wastes are composted to produce fertilizers.*

Keywords: Product Description, Significance, Environmental Impacts, Future Scope

