

Circular Economy Model Through The Use Of Pineapple Waste

Authors:

Condori Choque, Alejandra

Morales Apaza, Daniela Nicole

Torrez Torrez, Diego Alejandro

Bolivian Catholic University San Pablo

In the world, Latin America and Bolivia, the vast majority of things that are produced and / or consumed are under the concept of Linear Economy, that is, when a product reaches its useful life with the consumer, it is discarded as waste. Otherwise, the Circular Economy proposes that when the product reaches its useful life with the consumer, it is reinserted as raw material in its process, eliminating, for the most part, the concept of "Waste", which represents a great environmental, economic and social impact. This work proposes a Circular Economy model through the design of by-products-derivatives of the pineapple fruit, it proposes to generate added value to the current waste of the. Currently in Bolivia, pineapple production is only used for the nutritional consumption of the fruit. The waste of the leaves from the fruit and the peels are discarded, the same ones that become garbage. The project proposes making the most of pineapple leaves and shells to reduce the environmental impact of this product. Also, currently the production chains are linear, which causes a large amount of waste that is equivalent to an opportunity cost. The project seeks to generate a circular economy projection for pineapple. Indeed, obtain bioethanol products, natural fibers and pineapple paste to make the most of all the components of the fruit.

At this moment, our society is much immersed in the culture of discard. This creates a vision of consumerism and takes us away from sustainable development. With the following poster we promote the idea that everything can be used in one way or another, respecting and working harmoniously with our natural environment. Due to, each year the increase in waste is proportionally direct in relation to population growth and at the same time it seeks to collaborate to reduce waste and that these can be considered and used as raw material for the production of a product

The yield of pineapple with respect to the whole fruit is usually 45% to 55% and the rest are "waste", it is for this reason that pineapple is the perfect example to develop a basis of circular economy theory, by creating by-products of these wastes. The industrialization of pineapple allows the creation of products such as juices, concentrates, nectars, pulps, jellies and jams. The by-products of the industry are constituted by the peel that represents 31%, leaves 13%, heart of 3%. However, they are discarded, wasting their value due to the fact that the use of this agricultural by-product is limited to feeding cattle.