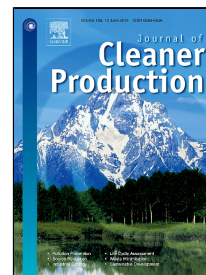


Accepted Manuscript



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PII: S0959-6526(18)31146-6

DOI: 10.1016/j.jclepro.2018.04.119

Reference: JCLP 12700

To appear in: *Journal of Cleaner Production*

Received Date: 14 December 2017

Revised Date: 11 April 2018

Accepted Date: 12 April 2018

Please cite this article as: Weiguo Fan, Xiaobin Dong, Hejie Wei, Boqi Weng, Long Liang, Zihan Xu, Xuechao Wang, Feilong Wu, Zhongdian Chen, Yan Jin, Changqing Song, Is It True That the Longer the Extended Industrial Chain, the Better the Circular Agriculture? A Case Study of Circular Agriculture Industry Company in Fuqing, Fujian, *Journal of Cleaner Production* (2018), doi: 10.1016/j.jclepro.2018.04.119

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Is It True That the Longer the Extended Industrial Chain, the Better the Circular Agriculture? A Case Study of Circular Agriculture Industry Company in Fuqing, Fujian

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Abstract

Develop circular agriculture is an effective way to reduce pollution and achieve sustainable agricultural development. At present, both the government and scholars have stressed employing agricultural wastes at multiple levels and extending the industrial chain as much as possible. However, whether the abovementioned strategy is environmentally friendly is worth consideration. To address this issue, by using the evaluation method of Life Cycle Assessment (LCA) and taking the circular agriculture industry company of Xingyuan, Fuqing, Fujian as an example, this paper analyzes different circular agriculture models and explores the environmental loads and environmental benefits of each sub-industrial chain from the environmental and economic-environmental viewpoints. The results show that, from the LCA perspective, a longer industrial chain of circular agriculture is not better and at different evaluation angles, different optimal combinations of the industrial chain models of circular agriculture can achieve the minimum environmental load or the highest environmental benefit. This study will be useful for newly built enterprises or sector-integrated park to design new recycling networks from the life cycle and economic-environmental impact perspectives.

Key words: Circular agriculture; LCA evaluation; Environmental impact; Economic - environmental benefits

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