

October 05-06, 2018
Barcelona, Spain

Fang Wang, Trends in Green chem 2018, Volume 4
DOI: 10.21767/2471-9889-C3-013

NEW INSTITUTIONAL STRUCTURE IN CHINA'S RURAL WASTE RESOURCES REUSED: CASE ANALYSIS BASED ON BROKERAGE COOPERATIVES

Fang Wang^{1, 2}

¹Sichuan Agricultural University, China

²Copernicus Institute of Sustainable Development - Utrecht University, Netherlands



Statement of the Problem: Under the constraints of resources and environment, the livestock husbandry in China stays at a critical stage of its transformation and upgrading. Facing with the inevitability of scale development and the severity of livestock waste pollution, the standard of the treatment of livestock and poultry manure has been increased and thus some barriers appeared, such as the increase of farmer pollution control costs, the imperfect manure trading market and so on. These barriers hinder the development of animal husbandry in China. The Chinese government invites private actors to enter the field of rural waste resources reused policy implementation. In such a situation, where a former hierarchical political system becomes organized more horizontally, the question emerges how the transformation in more horizontal structures can be brought about and how do actors get into contact so that they create these institutional arrangements that are needed for more sustainably to govern the waste reused? In this paper, the purpose is to analyze a new institutional structure that was created by four actors and examine the development of new horizontal structures on one level of analysis.

Methodology & Theoretical Orientation: Under the framework of institutional economics, the analysis will look at the role of the broker in creating such new horizontal connections based on a case analysis of Qionglai Lvhuan cooperative, which is one of the first brokerage cooperatives in China. This cooperative has developed out of market demands, specialized to transport and distribution of livestock and poultry waste.

Findings: Based on the case analysis, we found that this new institutional structure caused to reduce the farmers pollution cost, increase the cooperatives profit, enhance farmers

economic benefits, recycle and reuse the fecal waste, improve soil quality, supply more safety and quality agricultural products and decrease government environmental burden. Also, there still exist some problems needing to resolve in the future, such as manure fertilizer quality needs to be improved, transportation networks are to be reasonably built and so on.

Conclusion & Significance: The institutional structure has been playing an important role in overcoming the barriers that hinder the development of animal husbandry in China. Thus all actors would make concerted efforts to promote it more widely. The finding of this study may also suggest new directions for research to determine the optimal price and equilibrium of brokerage cooperatives' market.

Recent Publications

1. Fang Wang, Jing Xiu Yang, Hong'an Xiao, etc. Study on Recycle Agriculture: Theories, Methods and Practices, China Agriculture Press, 2014.01
2. Yan Bin Qi, Gang Wang and Fang Wang (2013) Low-carbon Development of Agriculture: Mechanism, Dilemma, Pattern and Institutional Design, China Agriculture Press, 10 4
3. Fang Wang (2012) Study on Development of Recycle Agriculture under Integration of Ecological Industry Chain and Ecological Value Chain, China Agriculture Press, 12
4. Fang Wang, Jun'an Chen (2009) A Case of Study on Energy Control in a Recycle Agricultural Household System based on Input-output Model. Journal of Agricultural Mechanization Research 31(8):15-19 24

Renewable Energy & Emerging Technologies

5. Fang Wang and Junan Chen (2009) Analysis of Transmission Mechanism of Pig Price Fluctuations in China. *Chinese Rural Economy* (7):31-41.

Biography

Fang Wang is a Professor in Sichuan Agricultural University, has rich experiences in agriculture circular economy, both theoretically and practically. She devoted herself for the development of agricultural circular economy in Southwest of China in her years of teaching and research.

f.wang1@uu.nl