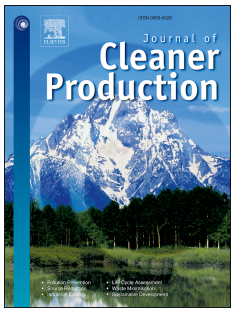
Accepted Manuscript



Technological innovation systems in multi-level governance frameworks: The case of Taiwan's biodiesel innovation system (1997–2016)

Chao-Chen Chung

PII: S0959-6526(18)30504-3

DOI: 10.1016/j.jclepro.2018.02.185

Reference: JCLP 12132

To appear in: *Journal of Cleaner Production*

Received Date: 24 August 2016

Revised Date: 26 January 2018

Accepted Date: 18 February 2018

Please cite this article as: Chung C-C, Technological innovation systems in multi-level governance frameworks: The case of Taiwan's biodiesel innovation system (1997–2016), *Journal of Cleaner Production* (2018), doi: 10.1016/j.jclepro.2018.02.185.

Technological innovation systems in multi-level governance frameworks: The case of Taiwan's biodiesel innovation system (1997–2016)

By Chao-chen Chung*

International Smart City Research Institute of Hong Kong, Hong Kong, China

Taiwan Agricultural Science and Technology Resources Logistics Management Association, Taipei, Taiwan (ROC)

Abstract

This study analyses the sustainability transitions of technological innovation systems (TISs) in the context of multi-level governance frameworks. TISs which are spatially embedded in both international and national arenas are simultaneously governed by the governance frameworks in different layers, i.e. international institutions on a macro level, national institutions on a meso level and domestic dynamics of novel technologies on a micro level. Through the investigation of the biodiesel innovation system in Taiwan, this study concludes that international institutions could appropriately play a role in the guidance of search, while national governments should ensure policies are consistent and generate appropriateness on the domestic TISs' functions. If the domestic TISs' functions are appropriately guided by the institutions on the above levels, novel technologies that sustainably transit the systems would then emerge on a micro level.

*Corresponding author: Tel.: +886-225851775. Email: chaochen.chung@gmail.com
2F., No.19, Dehui St., Zhongshan Dist., Taipei City 10460, Taiwan (R.O.C.)