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## Trends and changes of factors contributing to low-carbon practices among Taiwanese public: A four-wave longitudinal comparison (2009-2015)

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Low-carbon practices are crucial to curb GHG emissions while facing the problem of global warming (GW). The present longitudinal research was designed to examine and compare those factors contributing to low-carbon practices among Taiwanese public. Data collection comes from four independent sets of telephone surveys on nationally representative samples aged 18 and older in 2009 (N=947), 2011 (N=1649), 2013 (N=859) and 2015 (N=989), respectively. The results show that except for carrying one's own utensils when dining out in 2011 (46.9%), all low-carbon acts were practiced by more than half of the respondents. Further hierarchical regression analyses show women had engaged in more low-carbon practices than men across time, suggesting a habitually more caring tendency among women. Age had predicted positively to low-carbon practices in the first three waves, but it had a negative effect in 2015. Diversity of GW information sources did not reveal any effect in the first two waves, but its effects became significant in the last two waves. The foregoing indicates younger people had more access to various GW information sources than older people, thus had increased their low-carbon acts over time. As for perceptions and attitudes, GW concern started to exert its effects since 2011, though its explanatory power decreased a bit in 2015. Perception of seriousness only had a slight positive effect in 2011. The foregoing implies saturation of public concern and worry regarding GW. Efficacy of action has been a strong and consistent positive predictor, suggesting future directions for education and campaigns among the public.

### Biography

Mei-Ling Hsu obtained PhD in Communication from University of Michigan-Ann Arbor and is a distinguished professor of Communication at National Chengchi University, Taiwan. She has been on Fulbright visiting scholar grants to Harvard School of Public Health and Yale School of Forestry & Environmental Studies, and twice as visiting scholar to the School of Journalism and Communication, Chinese University of Hong Kong. She has researched and published widely in environmental and health risk communication. Since 2008, her research in environmental communication focuses on risk communication of environmental pollution such as dioxin and soil pollution and of issues related to climate change and renewable energy.

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