

論文審査の要旨

(Summary of Dissertation Evaluation)

博士の専攻分野の名称 (Degree)	博 士 (工学)	氏名 (Candidate Name)	DEK VIMEAN PHEAKDEY
学位授与の要件	学位規則第 4 条第 ①・2 項該当		
<p>論 文 題 目 (Title of Dissertation)</p> <p>Environmental Pollutions of Landfilled Municipal Solid Waste and Its Energy Recovery Potential: A Case Study of Phnom Penh Municipality (埋立固形廃棄物の環境汚染とエネルギー回収の可能性：プノンペン市の事例)</p>			
<p>論文審査担当者 (The Dissertation Committee)</p> <p>主査 教授 Tran Dang Xuan 審査委員 教授 Lee Han Soo 審査委員 准教授 Tetsuro Hosaka 審査委員 特任助教 La Hoang Anh 審査委員 教授 Ichihashi Masaru (Graduate School of Humanities and Social Sciences)</p>			
<p>〔論文審査の要旨〕 (Summary of the Dissertation Evaluation)</p> <p>The research was conducted to investigate the environmental pollution of the landfilled municipal solid waste (MSW) in Phnom Penh on soil, water, and vegetables in the site and its surroundings. The dissertation includes 6 Chapters. Chapter 1: Introduction, Chapter 2: Investigation of heavy metal accumulation in water, soil, and living organism in the landfill vicinity, Chapter 3: Accounting for greenhouse gas emission from municipal solid waste landfilling, Chapter 4: Evaluation of potential impacts of municipal solid waste management alternatives, Chapter 5: Energy, economic, and environmental benefits of waste-to-energy, and Chapter 6: General discussion and conclusion.</p> <p>The study found that the amounts of heavy metals in soil, water, vegetables and living organisms exceed limits. The CO₂ emissions and economic efficacies of the four proposed scenarios were calculated, validated, and proposed for electricity generation. Five MSW scenarios to mitigate environmental pollution and CH₄ emission were developed and suggested an integrated MSW management system for recycling and resource recovery. After examining the answers from interview, corrections from his dissertation, all the committee members unanimously judged that the candidate is qualified to receive the degree of “Doctor of Philosophy in Engineering.”</p>			

備考：審査の要旨は、1,500 字以内とする。