

4. บทคัดย่อบทความวิจัยทางการเกษตร

Title: Greenhouse gas emissions from rice farming inputs: a cross-country assessment

Abstract

Summary Regardless of the irrigation system deployed, rice production requires a variety of farm energy inputs. The present study estimated and compared greenhouse gas (GHG) emissions from rice farming practices, resulting from various farm inputs and irrigation systems in Pakistan, the Philippines, China, Indonesia, Myanmar, Nepal, Australia and the USA. Results indicate that, on aggregate, emissions related to farm machinery, fuels, agrochemicals and animal labor accounted for 0.018, 0.037, 0.666 and 0.008, respectively. Emissions from tubewell irrigation systems were the highest, followed by canal and rainfed irrigation systems. Average emissions from all selected countries with tubewell irrigation systems were 1.64 times greater than canal irrigation systems and 2-64 times greater than rainfed irrigation systems. When considering GHG emission efficiencies (emissions/kg of rice yield), developing countries were found to be less efficient than developed countries in both canal and tubewell irrigation systems. The relationship between GHG emissions and rice yield was statistically significant ($P < 0.01$), with results indicating that a yield increase of 100 kg would increase GHG emissions by 16.51 kg Co₂e (kg carbon dioxide equivalent).

ไม่มี Keywords

REFERENCE: (Maraseni, T.N., Mushtaq, S. & Maroulis, J. (2009). Greenhouse gas emissions from rice farming inputs: a cross-country assessment. *Journal of Agricultural Science*, 147, 117-126.)

อธิบายองค์ประกอบ

เป็นบทคัดย่อของบทความวิจัย

ส่วนที่ 1 ความนำ ส่วนที่ 2 บอกวัตถุประสงค์ และบอกวิธีการในส่วนของ การประเมินและเปรียบเทียบ ดูจากคำ “estimated and compared” ส่วนที่ 4 บอกผลการวิจัย