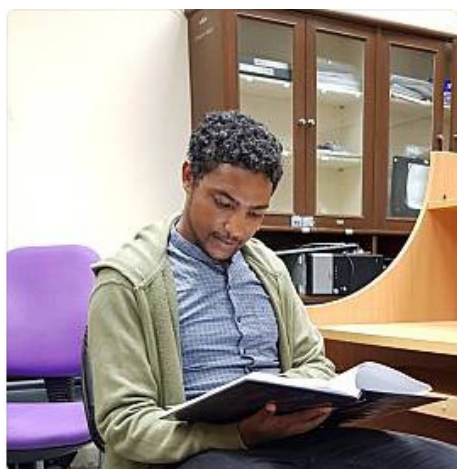


# RESEARCH CATALOGUE

ENVIRONMENTAL  
AND CLIMATE  
SCIENCE



## WATER-ENERGY-FOOD NEXUS OF SUGARCANE PRODUCTION IN ETHIOPIA



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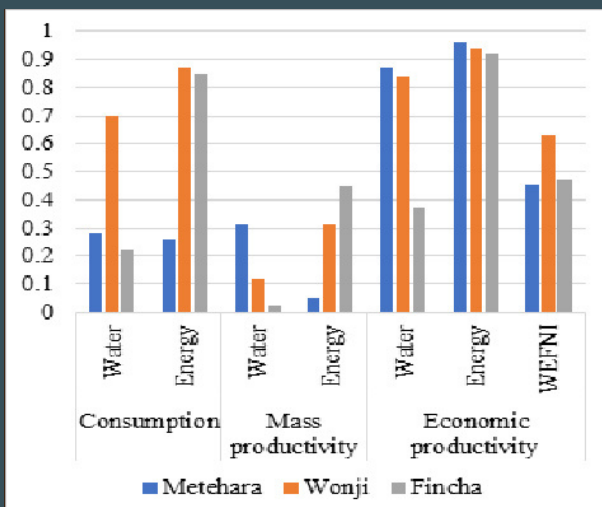
Life Cycle Sustainability Assessment Laboratory (LCSAL)  
The Joint Graduate School of Energy and Environment

This research work was conducted during 2017-2019 and aimed at assessing the water-energy-food (WEF) nexus in the sugarcane production sector of Ethiopia. The outcome of the study provided information about the water, energy and food interconnections in the three large-scale sugar producing factories in Ethiopia in the year 2017/18.



The study was conducted by applying a Water-Energy-Food Nexus Index (WEFNI) approach which brings different indicators together. The major role players for the nexus improvement of the proposed study sites were reduction of resource (water and energy) consumption and the increase of food (sugarcane) productivity relative to the past two years.

Producers and stake holders of the agriculture sector can use this nexus assessment approach to improve their productivity, profit and resource management. Based on the annual analysis of this nexus, they can understand how well the resource management performance is improved and help them to take actions on their weak points of the agricultural production stage.



### Research utilization

This study has been published in the international journal of "Environmental Engineering Science".

### Publication

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