

Systematic review on the social-ecological impacts of urbanization on agricultural systems

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1. Introduction

- Urban expansion often occurs at the cost of productive crop land
- It causes significant changes in land use and land cover
- It influences capacity of the ecosystem services within the agricultural systems and ultimately of food production

2. Objectives

- To identify the positive and the negative impacts of urbanization on environmental variables
- > To explore the positive and the negative impacts of urbanization on variables related to farmers' socio-economic situation

3. Conceptual Framework

Human Well-being **Environmental** impacts - Water quality - Water quantity - Agro-biodiversity - Soil fertility **Control of soil erosion**

- Carbon sequestration

- Control of invasive species - Pollination

Socio-economic

impacts

- Income & employment
- Food security
- Health & education
- Demographic stability
- Social networks
- **Conflict mitigation**
- **Cultural identity**
- Equity & access to land

Impacts on agricultural systems

- Higher demand of food and related resources \rightarrow Agricultural intensification - Shift away from primary economy to tertiary economies - Land use changes - Higher land prices

To analyze how urbanization impacts are mediated by effects modifiers (e.g. ecological footprint per capita)

5. Results

i) Distribution of the impacts in case study sites





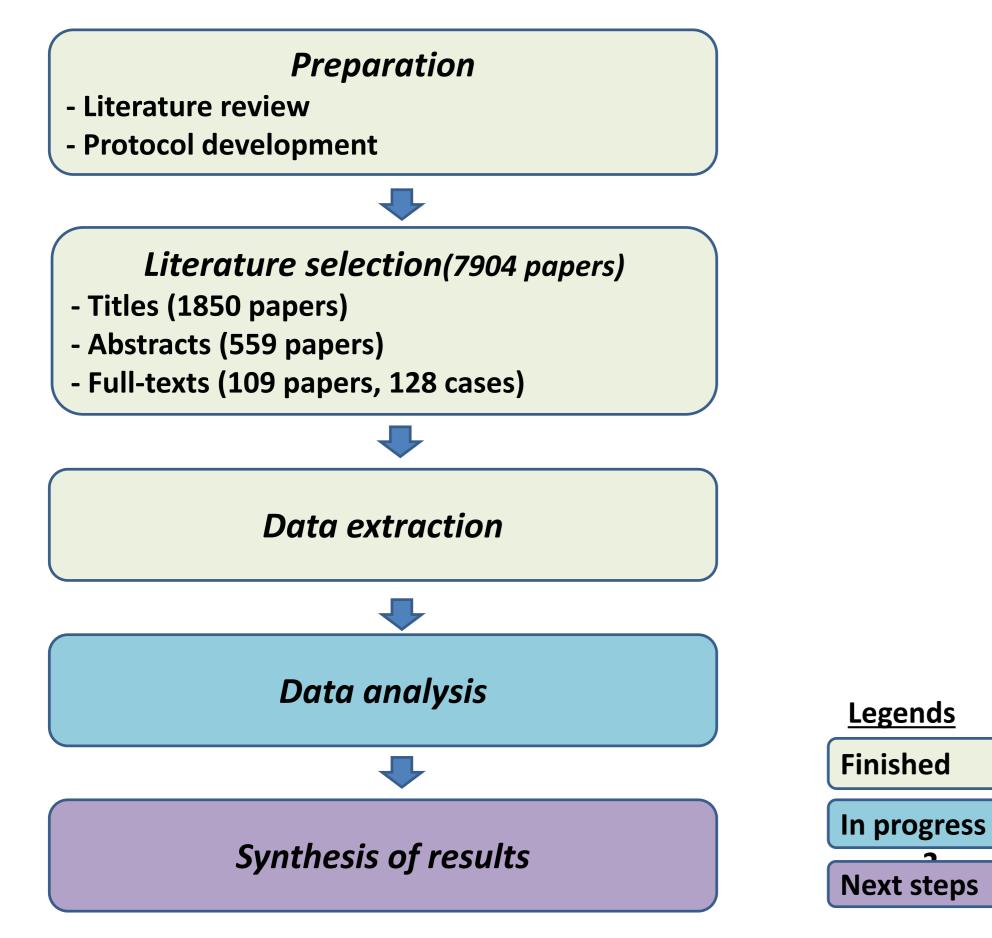
Effect modifiers

Urbanization

Fig. 2 The conceptual framework of the social-ecological impacts of urbanization on agricultural systems

4. Methodology

- Follows Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) Standards
- Geographic focus: Global



| | Positive social impacts | Ambiguous environmental impacts |
|--|-------------------------|---------------------------------|
| | | |

Negative environmental impacts

Ambiguous social impacts

Fig. 4 Global distribution of the social-ecological impacts of urbanization

ii) Number of the impacts per outcome variables

Number of social-ecological impacts of urbanization in agricultural systems



Fig. 3 Steps of the systematic review (to be) followed

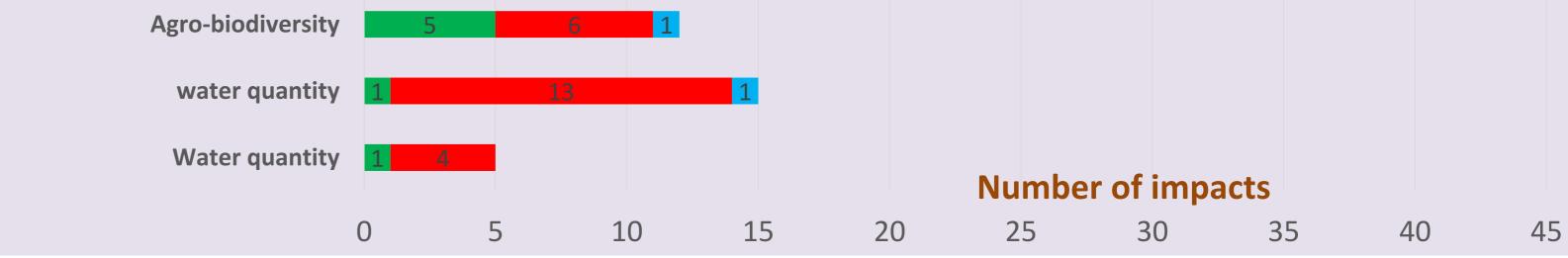


Fig. 5 Summary of the social-ecological impacts of urbanization in agricultural systems

6. Conclusions

More studies conducted in the global south than in the global north

More studies report negative impacts than positive ones



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