



UNIVERSITY OF GOTHENBURG  
SCHOOL OF BUSINESS, ECONOMICS AND LAW

# ENVIRONMENTAL GRASSROOTS INNOVATIONS: A CIRCULAR ECONOMY FROM BELOW

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[HTTPS://WWW.GU.SE/EN/RESEARCH/GRASSROOTS-FOR-SUSTAINABILITY](https://www.gu.se/en/research/grassroots-for-sustainability) GRASSROOTS RESILIENCE TACKLING  
CLIMATE, ENVIRONMENTAL AND POVERTY CHALLENGES FUNDED BY VETENSKAPSRÅDET (2017-2021)



# AIM

To present the experiences of a successful action-research collaboration between scholars and grassroots organisations in Kenya, Tanzania, Argentina, Brazil, Nicaragua, Canada and Sweden on grassroots innovations in sustainable and inclusive waste management and clean energy production.



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Photo: Patrik Zapata/GU

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## Grassroots for Sustainability

Research group

Contact

Maria Jose Zapata Campos → Associate professor  
[mj.zapata@handels.gu.se](mailto:mj.zapata@handels.gu.se)

Active research

Website  
 Recycling network on Facebook →

Project period  
 2017 - ongoing

Project owner  
 Maria José Zapata Campos,  
 Gothenburg Research Institute (GRI)

Area  
 Sustainability and environment  
 Society and economy

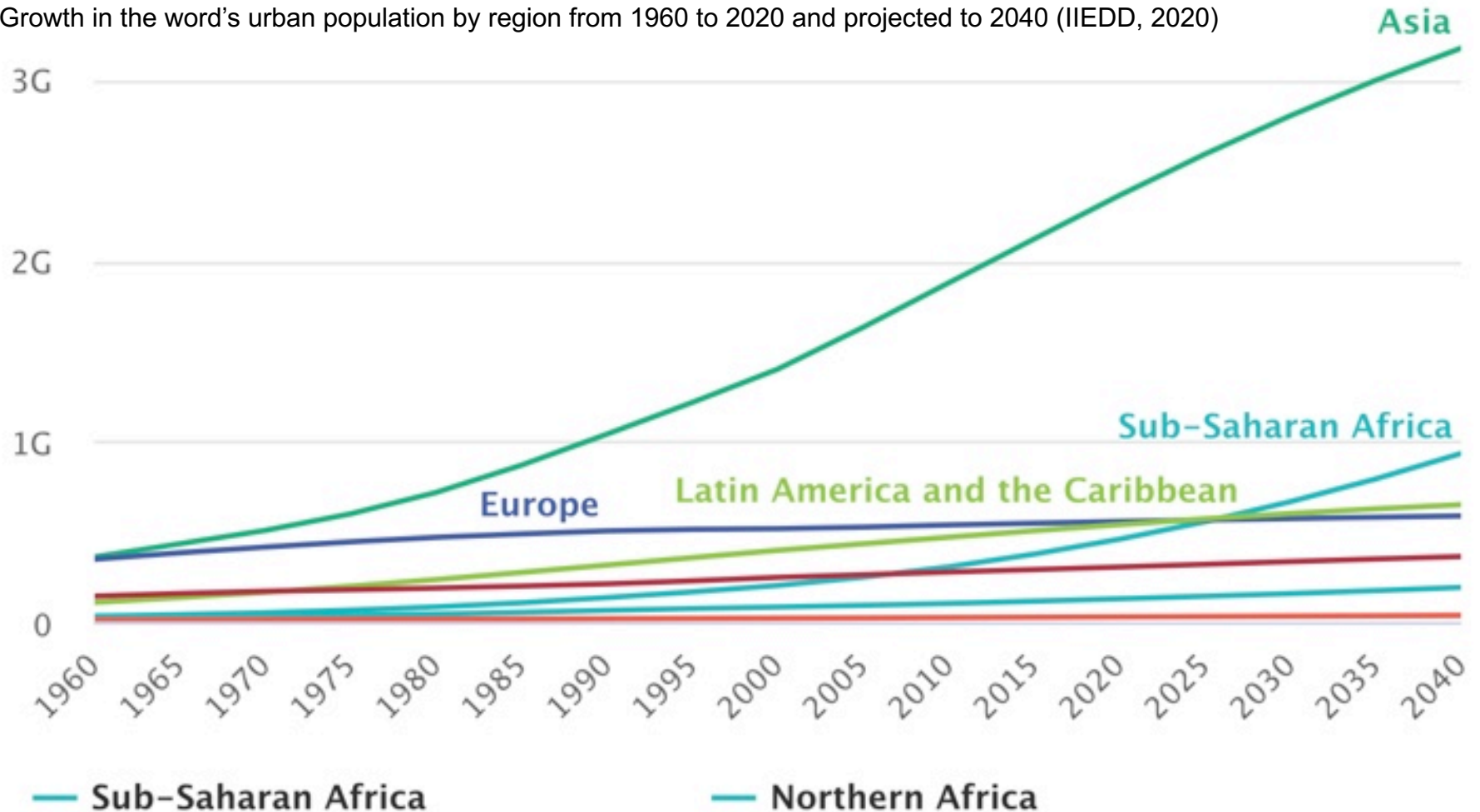
Topic  
 Business Administration  
 Sociology  
 Political Science

Short description

The research group Grassroots for Sustainability explore how grassroots networks, initiatives and practices, initiatives, networks and practices promote grassroots resilience, and contribute to reduce both the adverse impact of cities on climate and environmental change on community, city and societal levels.

- Swedish Research Links (2014-2015)
- ‘Participatory waste management’ Swedish International Centre for Local Democracy (2015-2016) and (2018-2019)
- ‘Compact cities in informal settlements’ Formas (2016-2020)
- ‘Recycling Networks’ Swedish Research Council (2017-2021)
- Participatory innovation films for an inclusive and sustainable waste management Formas (2020-2022)
- Application Covid-19 Formas: A green recovery from below: grassroots biogas in Sub-Saharan cities.

Growth in the world's urban population by region from 1960 to 2020 and projected to 2040 (IIEDD, 2020)















Manufacturing plastic ropes reusing old factory machinery. Recycling Dreams, Buenos Aires



Organic waste to biogas Nova Glicerio, Sao Paulo



Peer-to-peer biogas development in Kisumu



Machines to transform expanded polystyrene (EPS). Recycling Dreams Cooperative, Buenos Aires



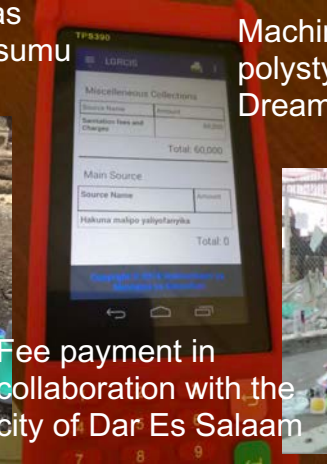
Hard plastic shredding machine Nova Glicerio, Sao Paulo



Table banks, and community currencies, Kisumu



Women-group transforming fish-waste , Kisumu



Fee payment in collaboration with the city of Dar Es Salaam



Brazil payment for waste collection services





Source: Scheiner et al 2011

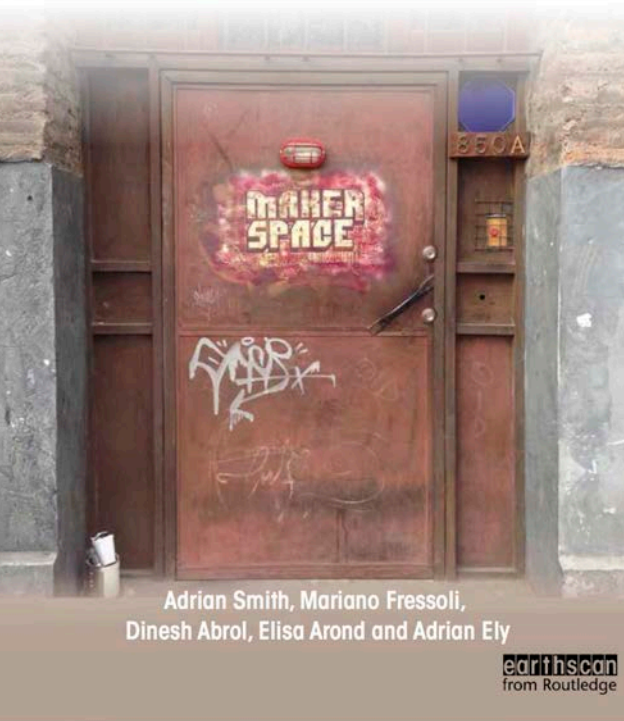




- Fertiliser shortages
- Risk of eutrophication of lakes
- Energy shortages, dependency on carbon-based energies

PATHWAYS TO SUSTAINABILITY

# GRASSROOTS INNOVATION MOVEMENTS



Adrian Smith, Mariano Fressoli,  
Dinesh Abrol, Elisa Arond and Adrian Ely

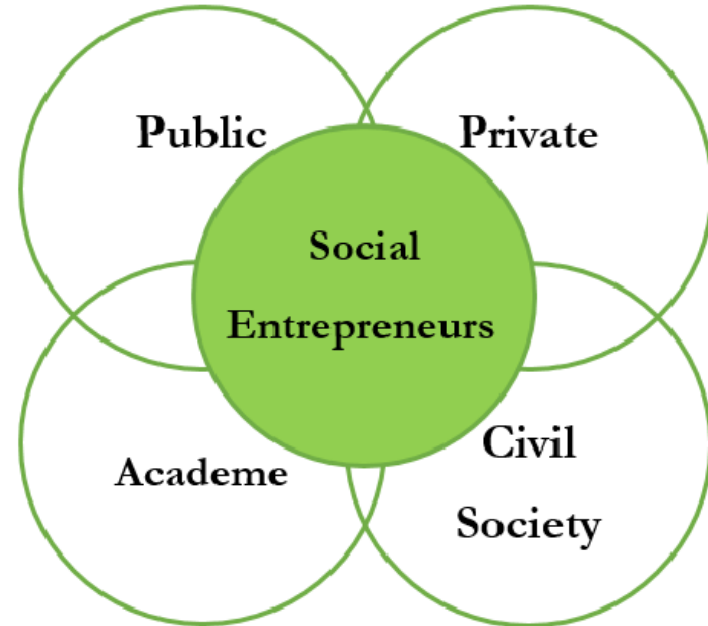
earthscan  
from Routledge

# Inter-disciplinary Participatory

Action-research

Co-production

Trans-disciplinary







International Conference Dar Es Salaam May 2019

Skype meetings Brazil-Kenya-Argentina January-March 2019

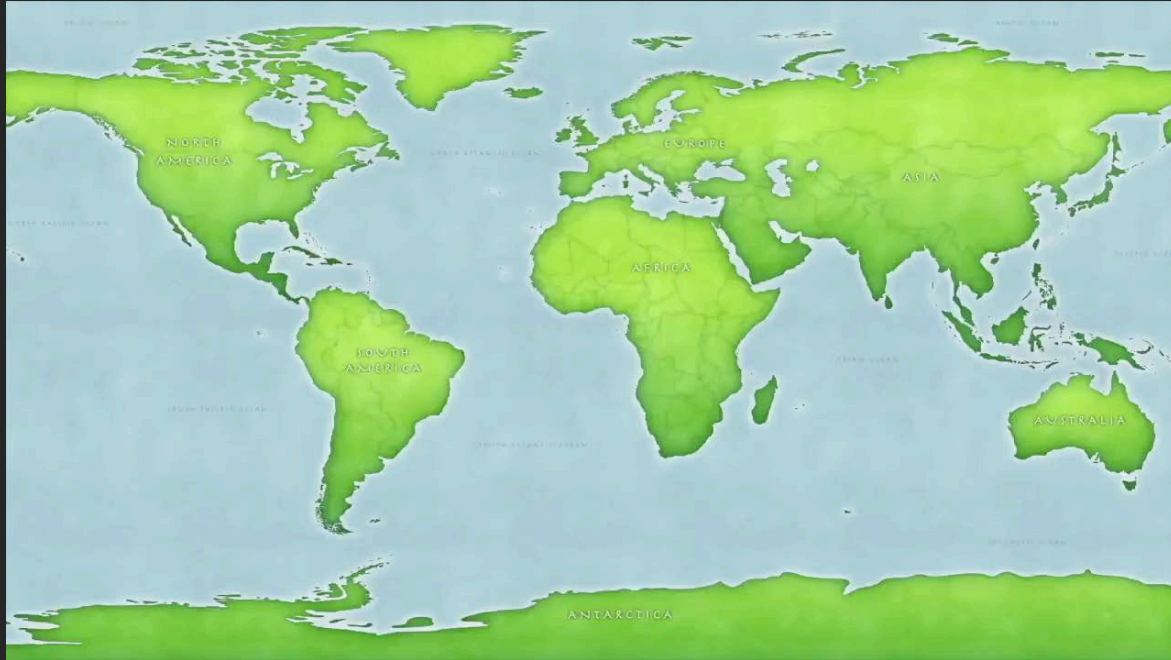


Workshop to test biogas & cart, Kisumu April 2019



Conference Dar-Zanzibar May 2019

## Peer-to-Peer workshop, Kisumu



John Cheweya, project communicator and waste picker group leader



# Thank you

Photos:

John Cheweya

Jaan-Henrik Kain

Patrik Zapata

María José Zapata Campos

<https://www.gu.se/en/research/grassroots-for-sustainability>