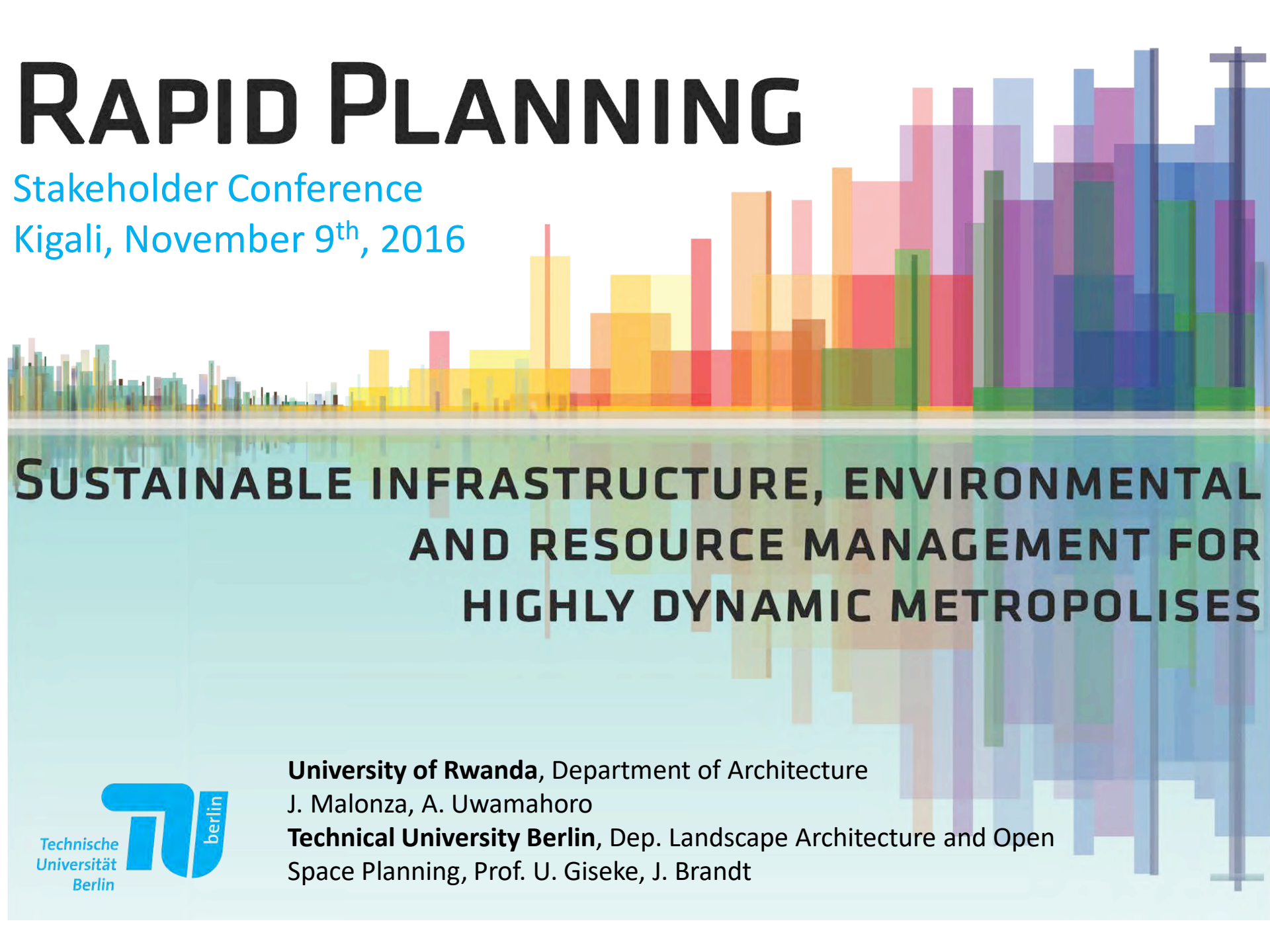


RAPID PLANNING

Stakeholder Conference
Kigali, November 9th, 2016



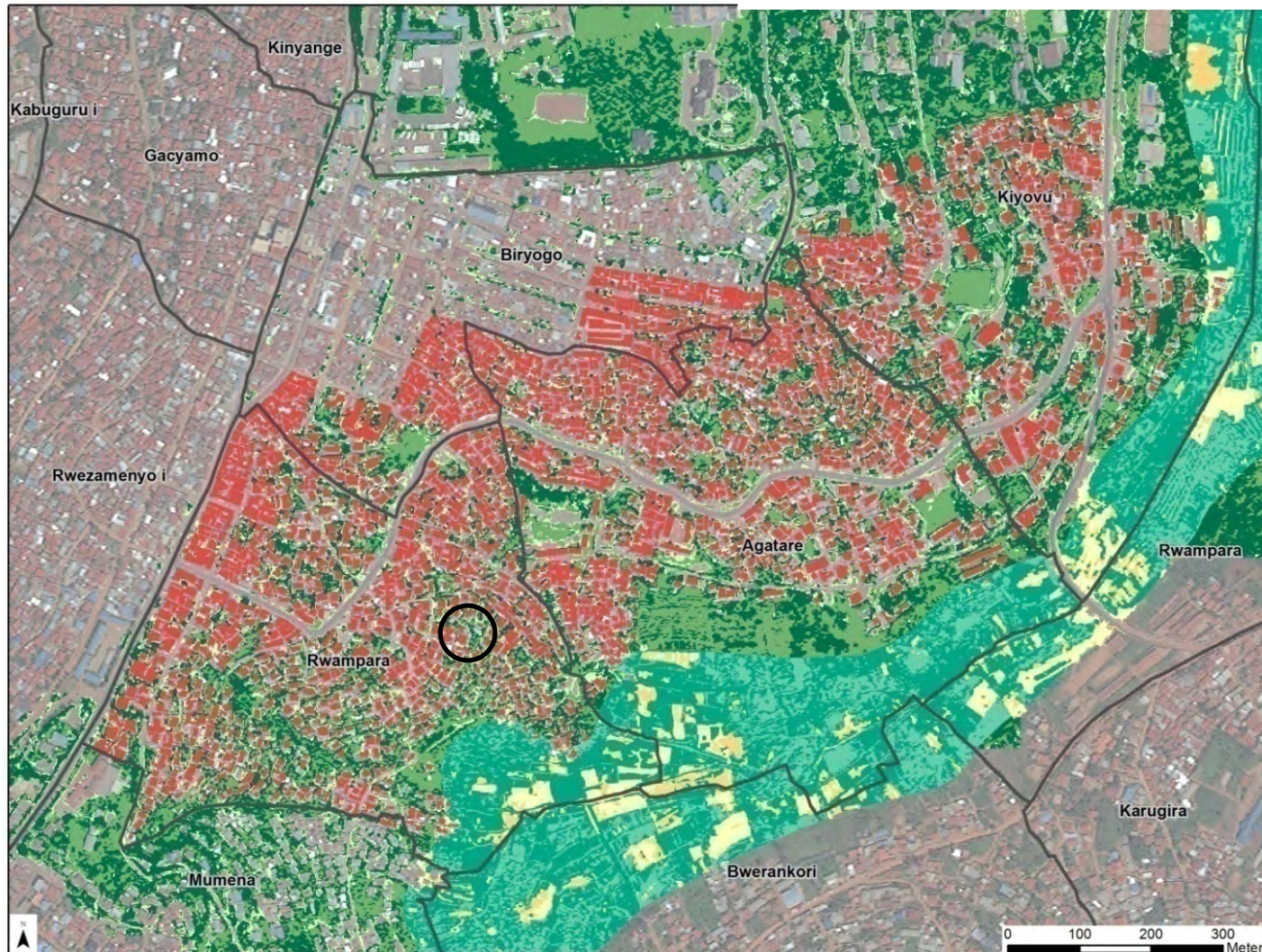
SUSTAINABLE INFRASTRUCTURE, ENVIRONMENTAL
AND RESOURCE MANAGEMENT FOR
HIGHLY DYNAMIC METROPOLISES

Interactive Infrastructures Linking People, nature and the city

- 20 students
- 9 countries (Rwanda, Nigeria, Cameroon, Ghana, Philippines, India, Columbia, France, Germany)
- 4 continents
- 3 input days (CoK, Wasac, Coped, Recor, Gistech, UR, RP team)
- 3 design days
- RP Organizers: TU Berlin, University Rwanda, BTU Cottbus Senftenberg, Local Office Manger

Nyarugenge Upgrading Area

EBERHARD KARLS
UNIVERSITÄT
TÜBINGEN



Building footprints & vegetation

- Cell Boundary
- Building footprints 2014
- Vegetation**
 - Trees, Shrubs
 - Greenfields, gardens and small shrubs
 - Sparse grass
 - Wetlands: Agriculture
 - Wetlands: Plantation, trees, shrubs, high biomass
 - Wetlands: Sparse Vegetation
 - Wetlands: Open or ploughed soil

Author: Felix Bachofer
Version: 2015-01-19

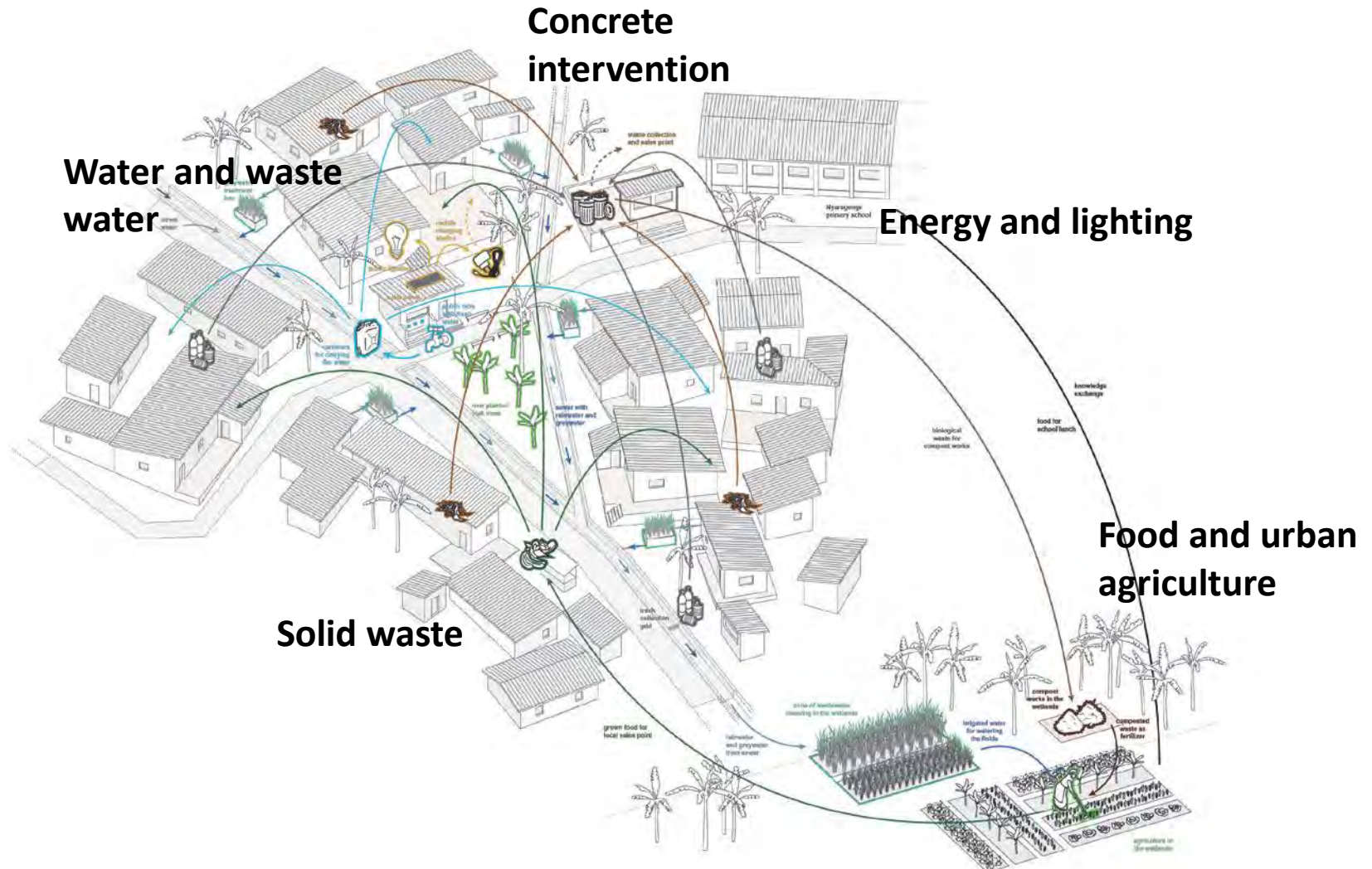
GeoEye-1 satellite image:
2014-01-05
Courtesy of the
DigitalGlobe Foundation

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of Education
and Research

0 100 200 300 Meters





Sunday August 1st, 2015

1. RP Entry project (RP Project Office)
2. The New Urban Agenda (UN Habitat)
3. Rapid urbanization (University of Rwanda)
4. Master Plan of Kigali (University of Rwanda)
5. Informal Settlements Kigali (University of Rwanda)
6. Energy in Agatare (IER Stuttgart)
7. Housing (IFEU Heidelberg)

Monday August 2nd, 2015

1. Study Agatare (GisTech)
2. Environmental Planning Agatare (Brandenbrug Technical University Cottbus Senftenberg)
3. Water situation in Kigali and Agatare (WASAC)
4. Waste management strategy (Coped Ltd.)
5. Connecting Spheres (Technical University Berlin)
6. Experiences in Water, Sanitation and Urban Agriculture (Recor)



„Water stay water“

Decentral grey water treatment,
Water reuse for gardening and
cleaning, cycle, infiltrate

„Initiator water kiosk“

Structural improvement,
solar panel, fruit trees, open
space improvement

„Ingufu Rusange“

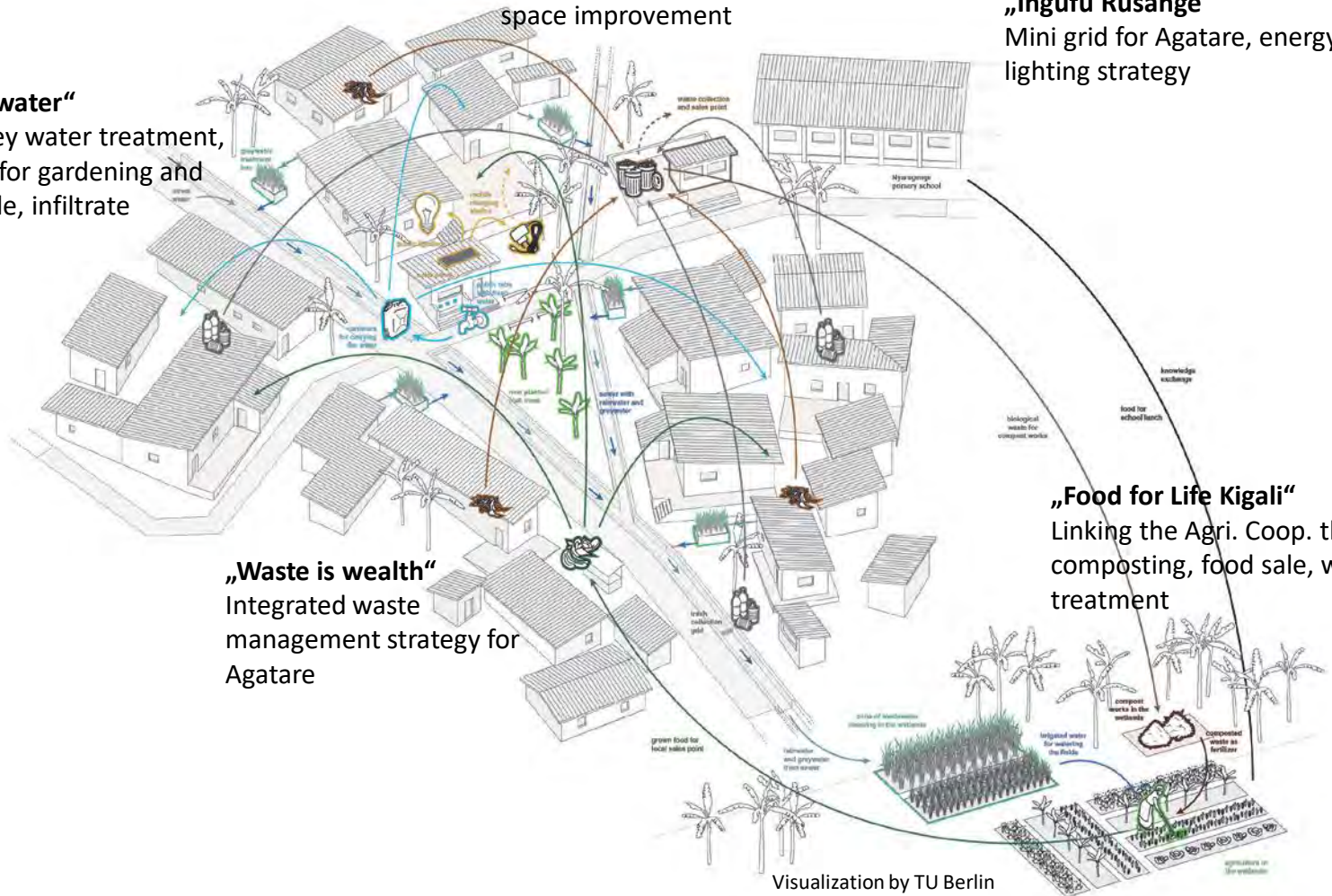
Mini grid for Agatare, energy and
lighting strategy

„Waste is wealth“

Integrated waste
management strategy for
Agatare

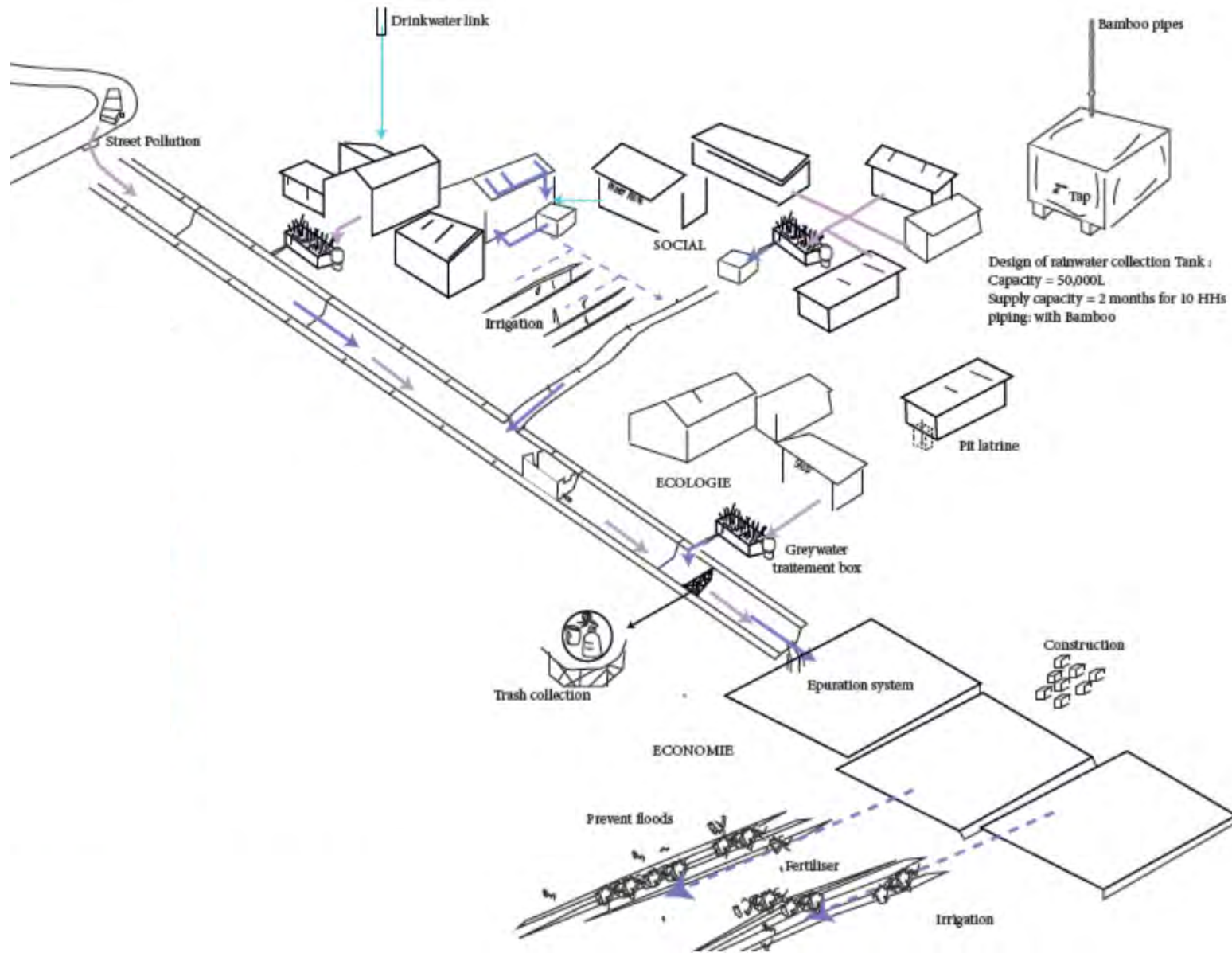
„Food for Life Kigali“

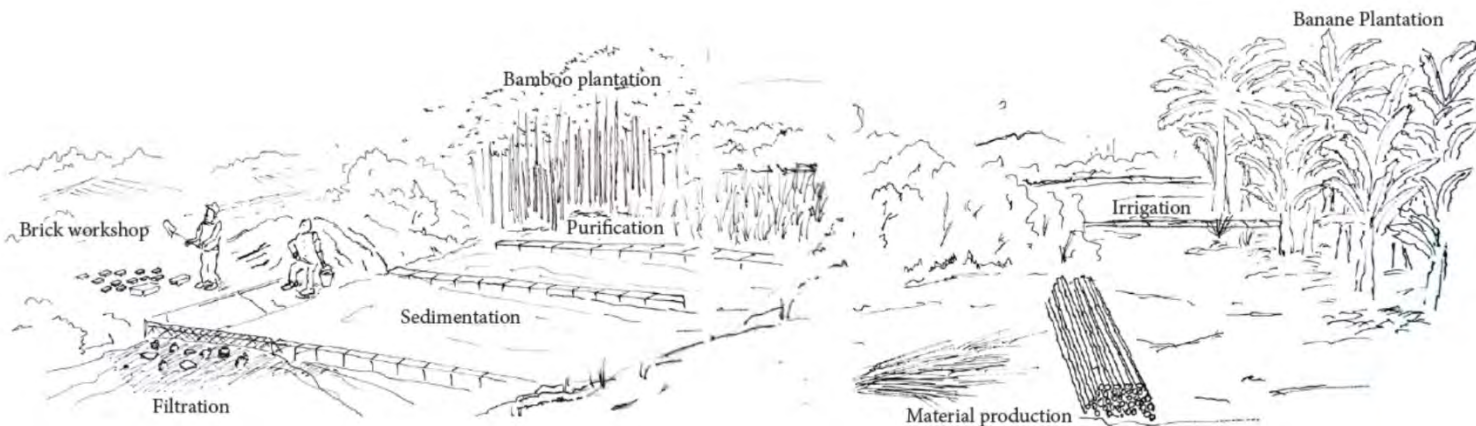
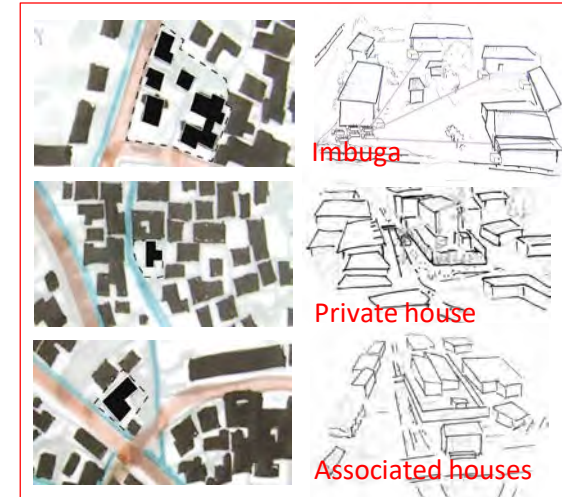
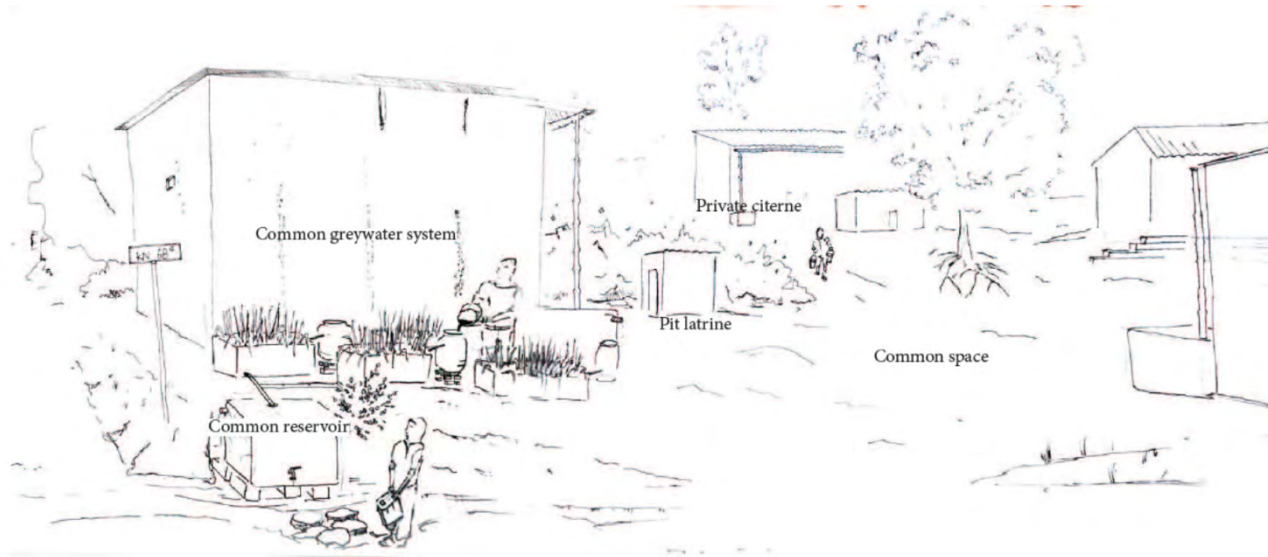
Linking the Agri. Coop. through
composting, food sale, water
treatment





Photos: J. Brandt





-Epuraton system with terrasse :



1- Filtration



2- Sedimentation

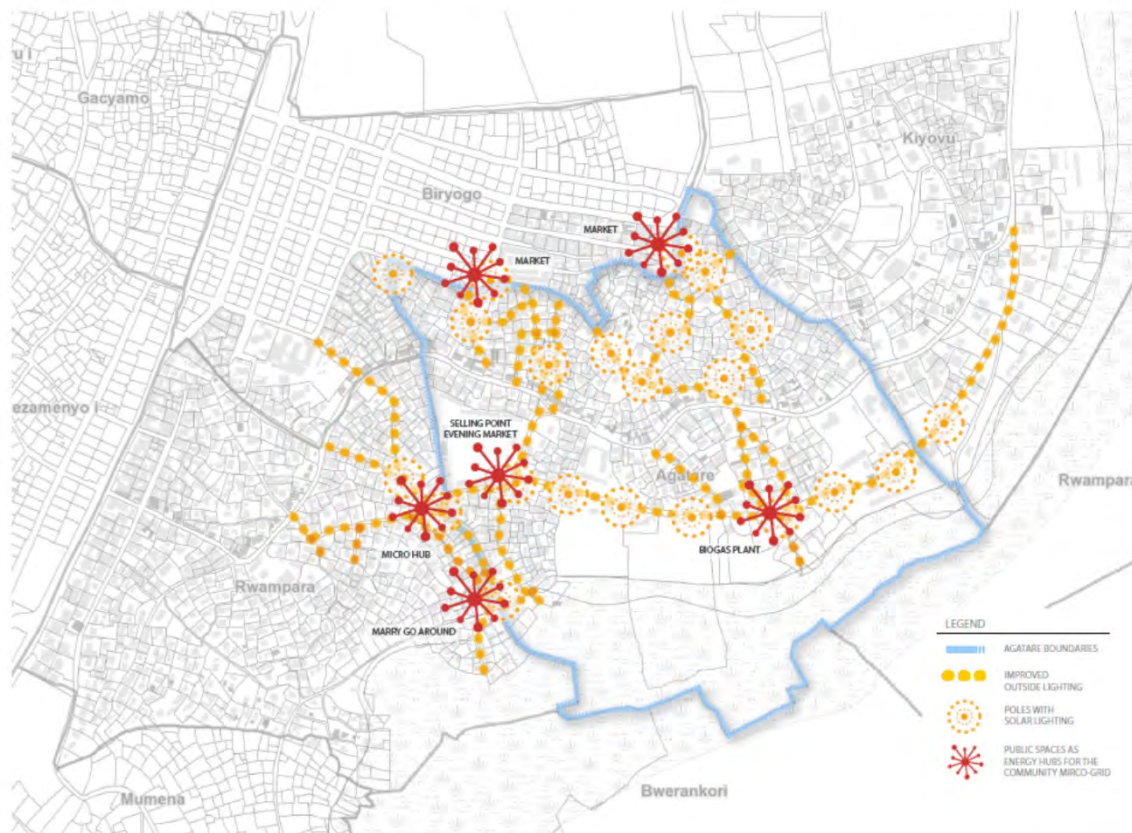


3- Purification



4- Irrigation

AGATARE - ELECTRICITY AND LIGHTING STRATEGY



INTERVENTIONS



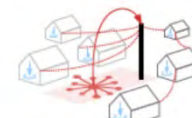
I. COHERENT ENFORCEMENT AND SIMPLE IMPROVEMENT (LOCATION AT FRONT DOOR, DIRECTIONALITY OF LIGHT) OF HOUSEHOLD OUTSIDE LIGHTING FOR STREET ILLUMINATION



II. PROVISION OF PUBLIC LIGHTING TO ILLUMINATE PUBLIC SPACES BY USING SOLAR PANELS ON THE ALREADY EXISTING ELECTRICITY POLES



III. ESTABLISH 'ENERGY COOPERATIVES' RESPONSIBLE FOR LINKING CENTRALISED SUPPLY, MICRO GRID AND PRIVATE HOUSEHOLDS AS WELL AS MANAGEMENT AND MAINTENANCE OF THE ENERGY SYSTEM



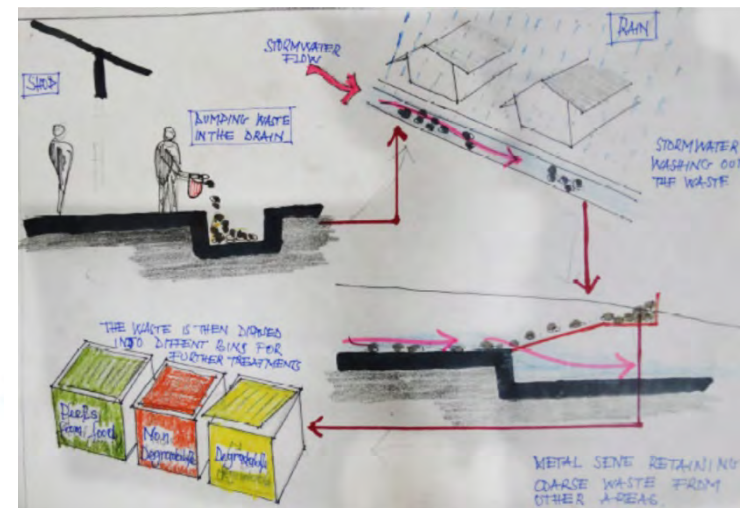
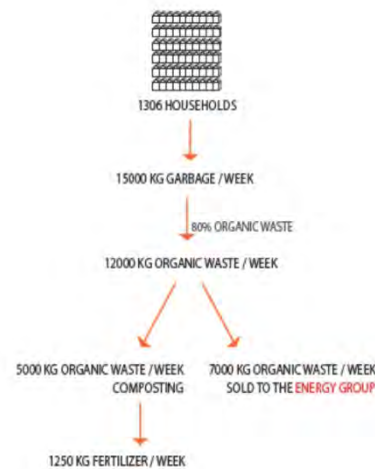
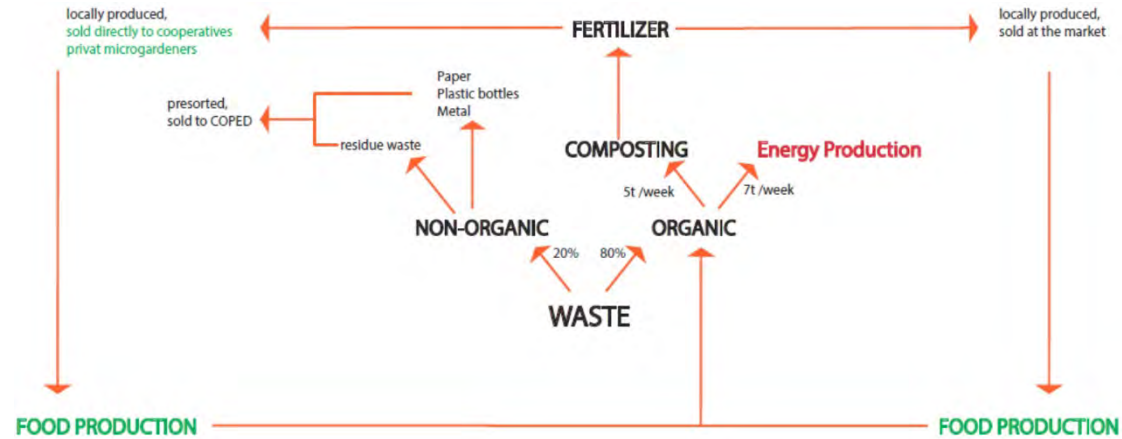
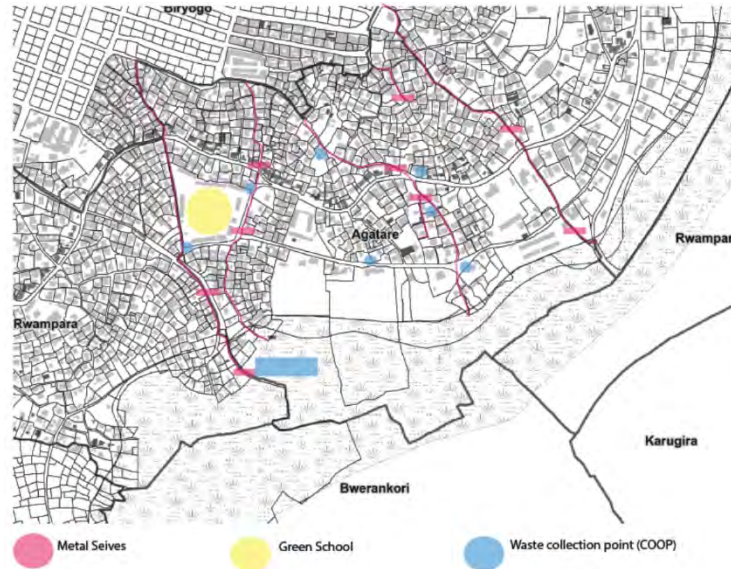
IV. DECENTRALISED ENERGY PRODUCTION BASED ON AN INDEPENDENT MICRO GRID, FED BY ENERGY OF COMMUNITY ACTIVITIES (SOLAR PANELS, BOGAS, SEWING, ETC.)



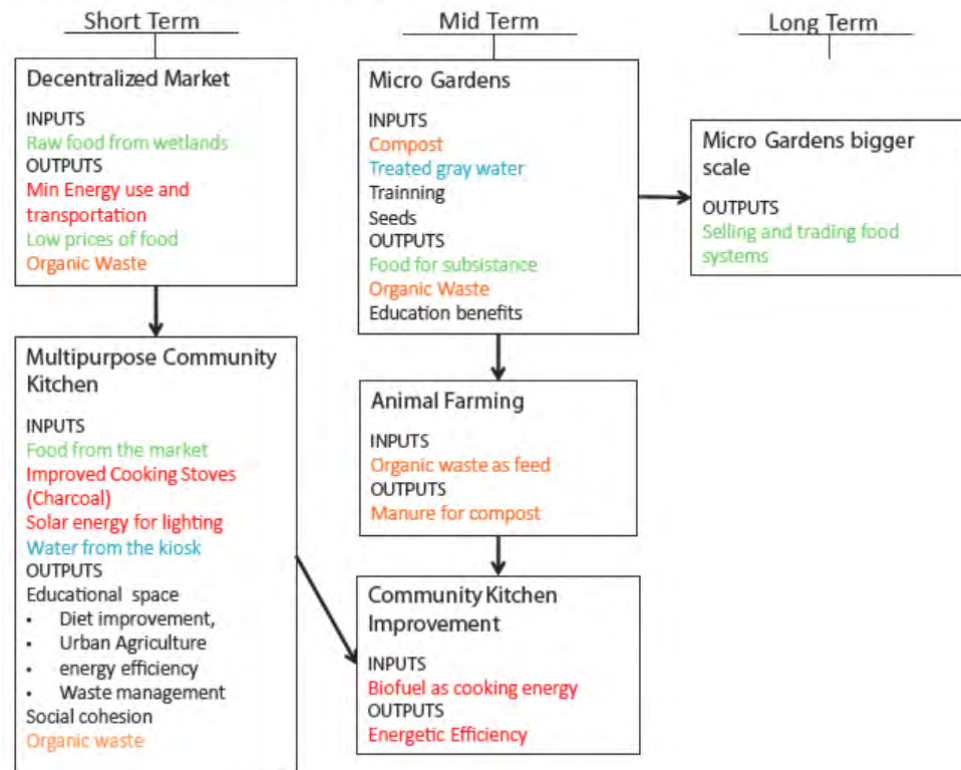
RAPID PLANNING

www.rapid-planning.net

Group 3: Waste is wealth

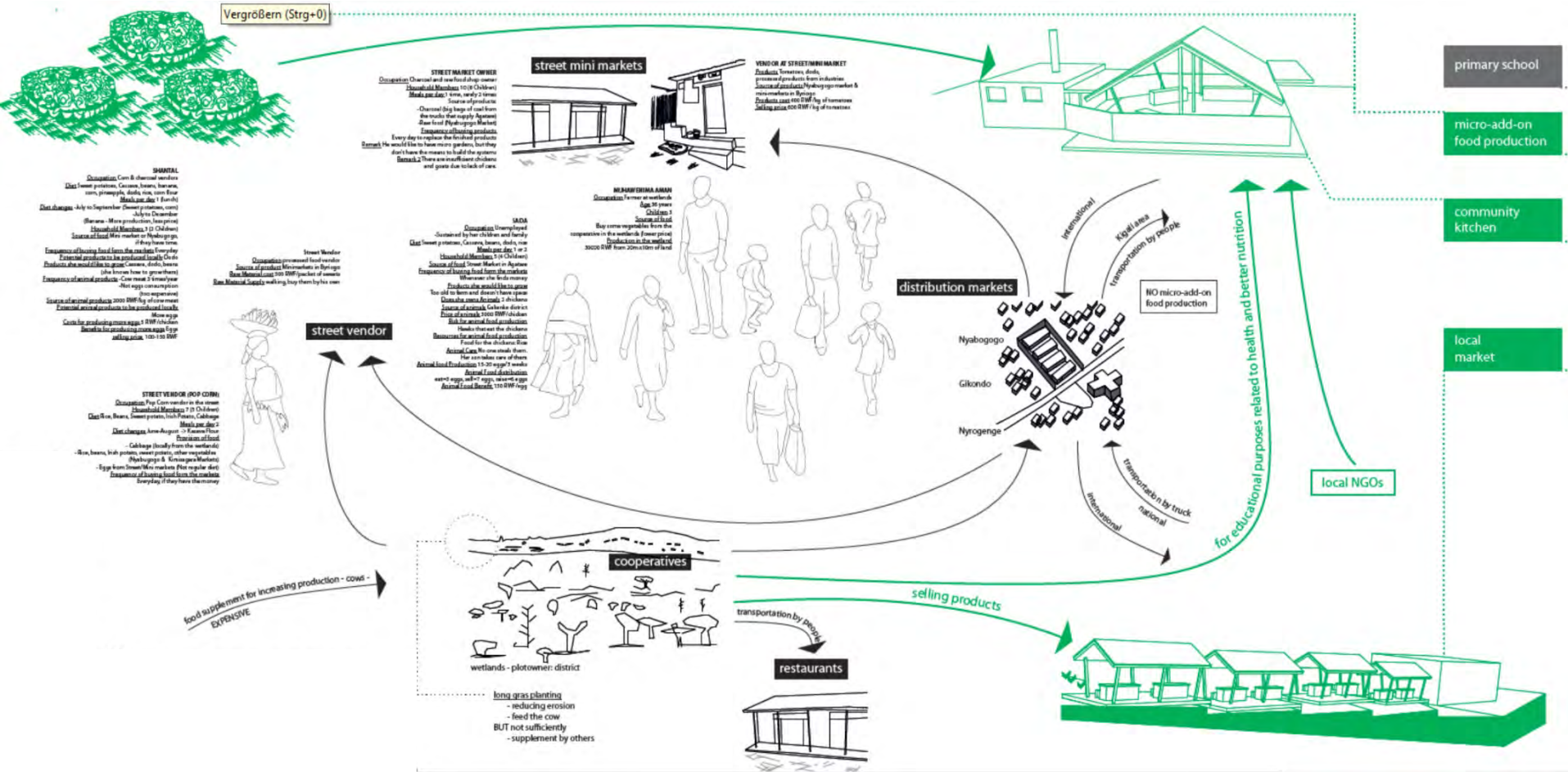


implementation plan



interventions







J. Henglein-Bildau

- Community Agatare Cell: Elected Community Representative – C. Gakwaya
- Inhabitant and kiosk owner
- District Office Nyarugenge: Technician – E. Ingabire
- Nyarugenge District: Mayor – S. Mukasonga
- City of Kigali (One-Stop-Center): Consultant – F. Deye, Technician/Architect
- Up-grading study Agatare: GIS Tech Consultants – D. Koech and Team
- NGO Recor: Executive Secretary – J. C. Sehene, Programs Coordinator – E. Bucyayungura
- COPED Ltd: GM – A. Rwanzunga
- Water & Sanitation Corporation (WASAC): Director of Urban Water and Sewerage Services, M. Rutagungira
- University of Rwanda: College of Science and Technology





Thank you for your attention!