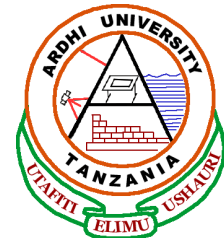


OPEN DATA AFRICA CONFERENCE
4TH -5TH SEPT 2015
DAR ES SALAAM INTERNATIONAL
CONFERENCE CENTER, TANZANIA

**Data needs of Research on Cities, and
why open data is useful to our
research**

Dr. Makarius Victor Mdemu
Department of Regional Development Planning
School of Urban and Regional Planning
Ardhi University
Tel: +255765466058; e-mail: makmdemu@gmail.com



Presentation Outline

1. **Introduction: Ardhi University**
2. **Open data needs**
3. **Importance of open data to research**
4. **ARU: Potential for open data centre**

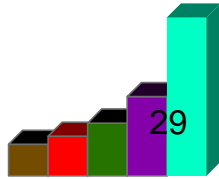


Introduction: Ardhi University

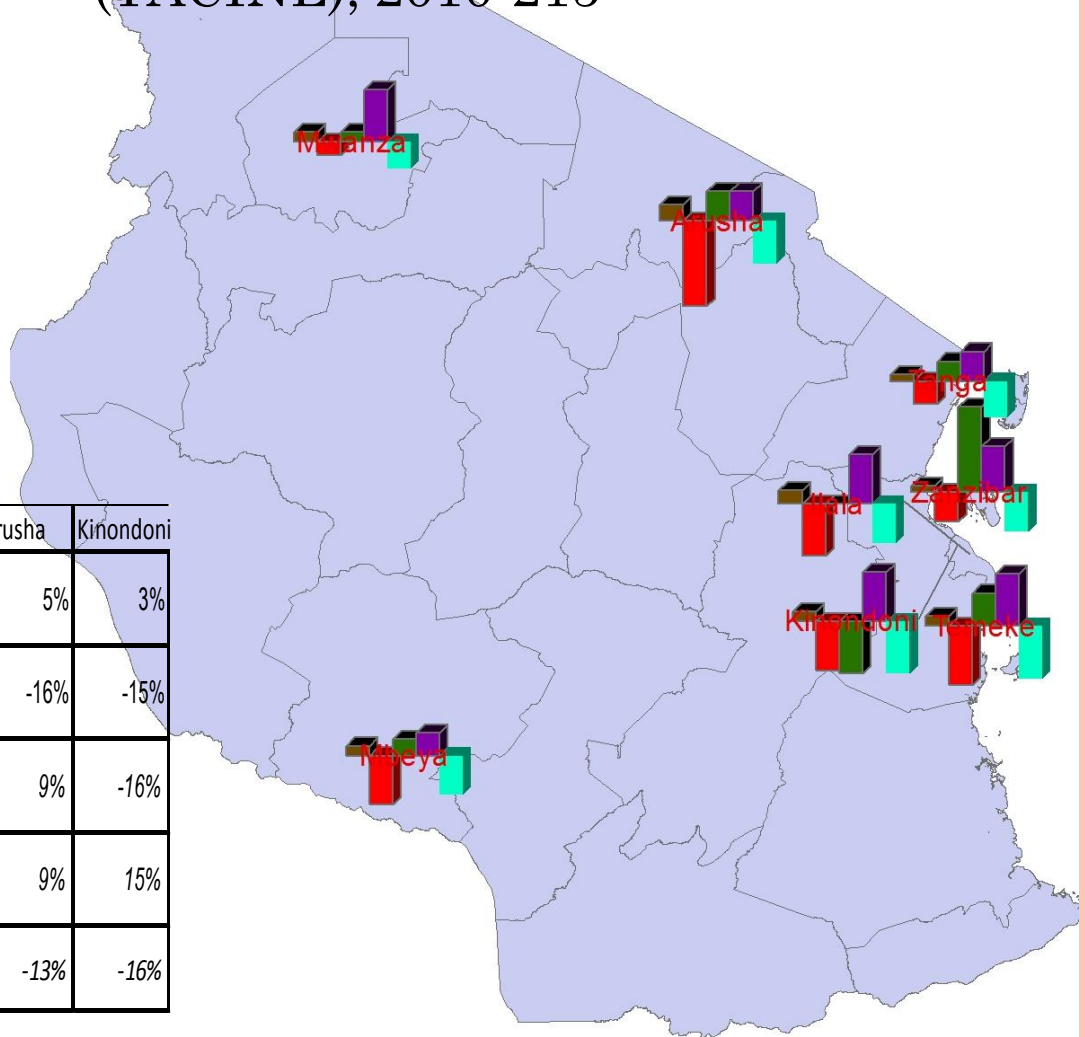
- ARU (2007): 473 staff members (Academic: 238; Administrative/technical: 235)
- Total Students Enrolment: 3573 (2014/2015 academic Year)
- ARU has 6 schools (Architecture & Design –SADE; Construction Economics & Management –SCEM; Environmental Sciences & Technology –SEST; Geospatial Sciences & Technology –SGST; Real Estate Studies –SRES; Urban & Regional Planning -SURP)
- Other academic units (Institute of Human Settlements Studies –IHSS; Disaster Management & Training Centre –DMTC; Centre for Information Communication & Technology – CICT; Centre for Continuing Education –CCE; Land Administration Unit-LAU; Publishing Centre; University Library)
- ARU offers 48 academic programmes (24 Undergraduate, 7 Post-graduate Diplomas, 10 Masters degree, 6: PhD: programmes)



Ardhi University: Open data generation, co-generation, use and needs



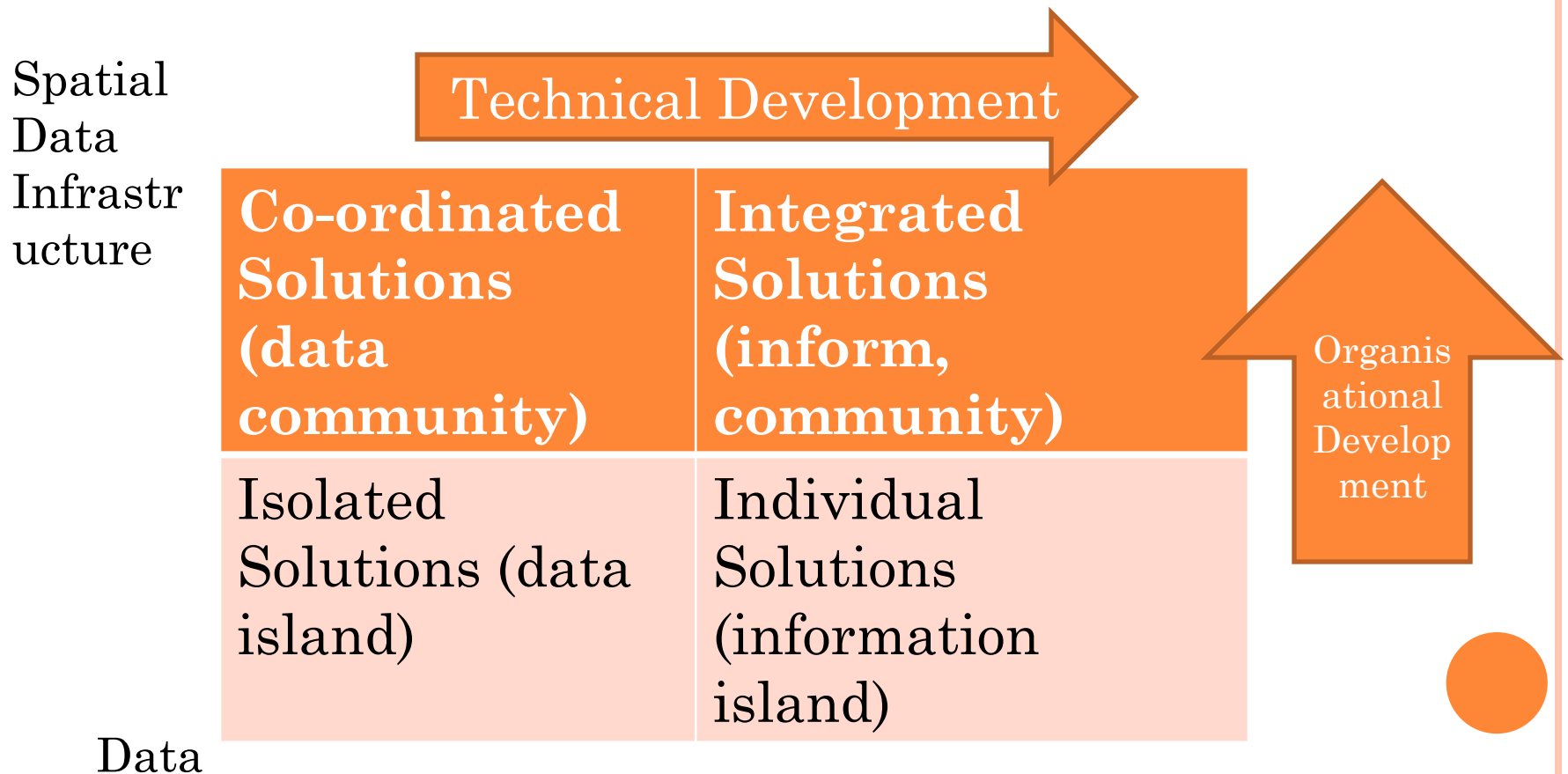
Tanzania State of Cities Network (TACINE), 2010-2015



thematic	Mwanza	Temeke	Mbeya	Zanzibar	Tanga	Ilala	Arusha	Kinondoni
governance	3%	3%	3%	2%	2%	4%	5%	3%
safety and security	-4%	-18%	-15%	-9%	-7%	-16%	-16%	-15%
Sustainability	3%	10%	5%	26%	6%	0%	9%	-16%
Productivity	16%	16%	7%	14%	9%	15%	9%	15%
inclusivity	-8%	-16%	-12%	-12%	-11%	-12%	-13%	-16%

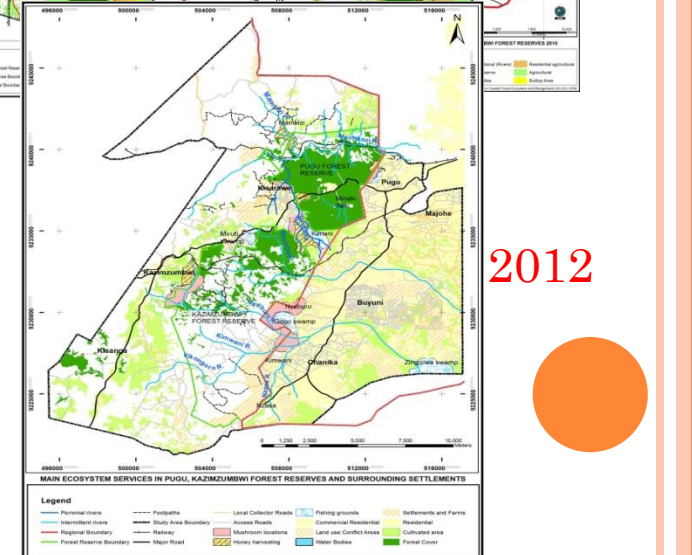
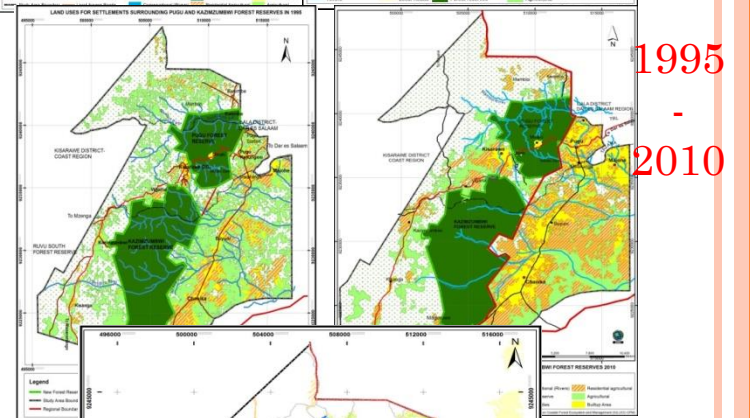
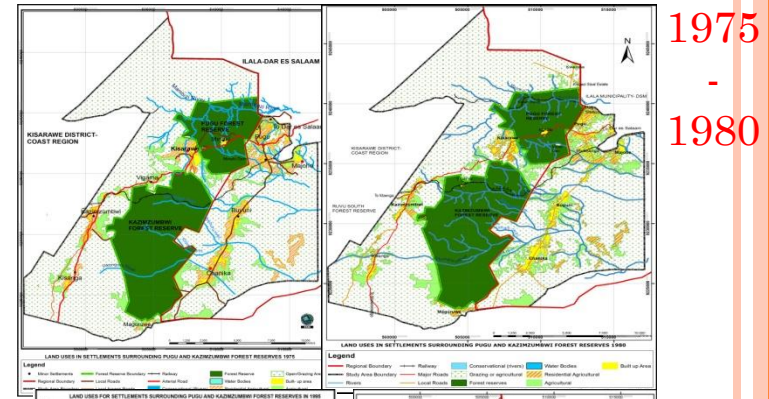
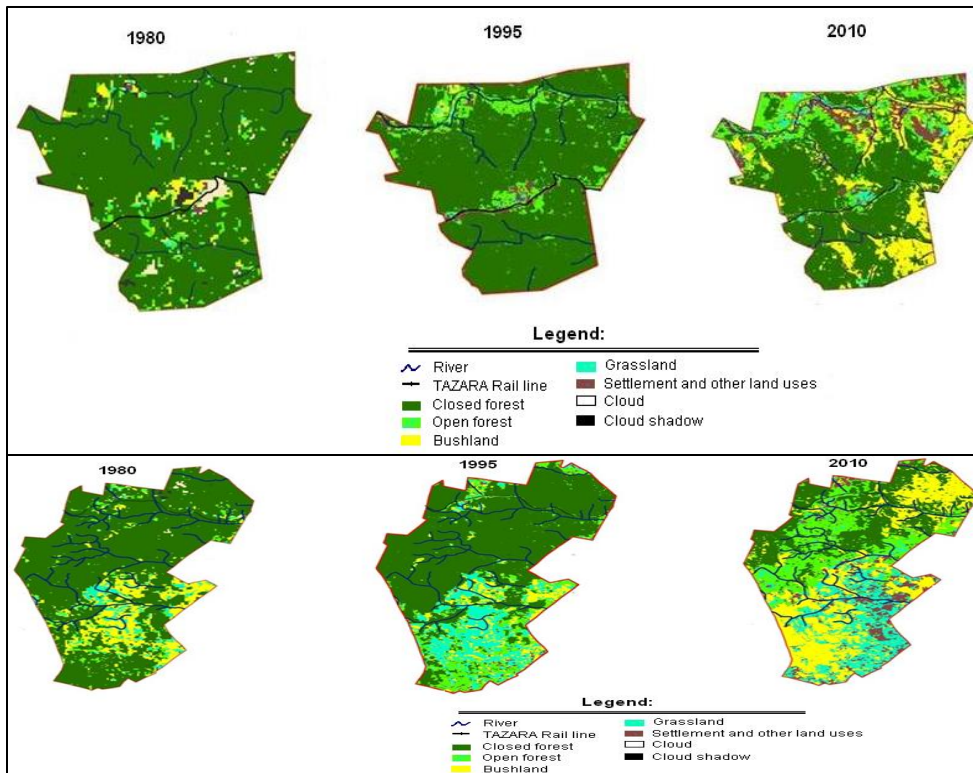
Ardhi University: Open data generation, co-generation, use and needs

- Spatial Data Infrastructure (SDI) readiness: Dar es Salaam, Mbeya and Mwanza Cities, 2012-2013



Ardhi University: Open data generation, co-generation, use and needs

- Analysis of the Impacts of peri-urban land use and climate change on forest ecosystem services, 2010-2014: CCIAM Programme



2012

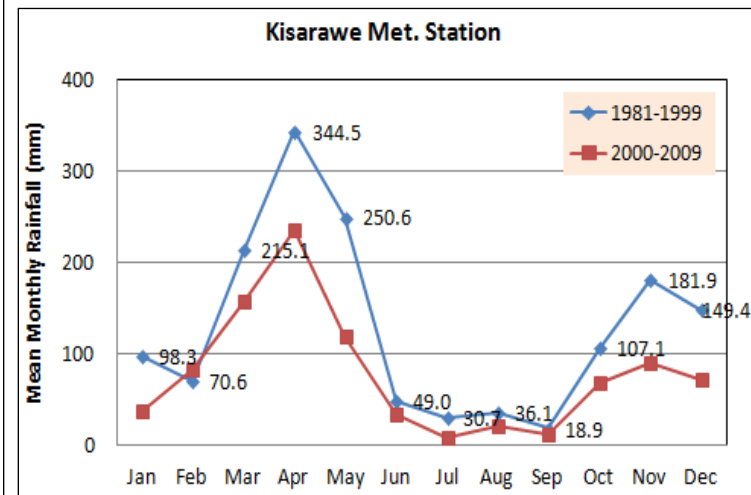
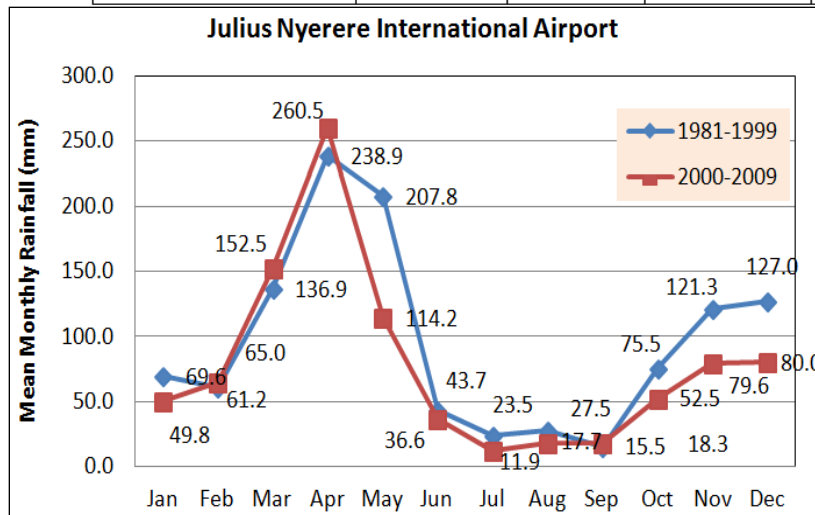


Ardhi University: Open data generation, co-generation , use & needs

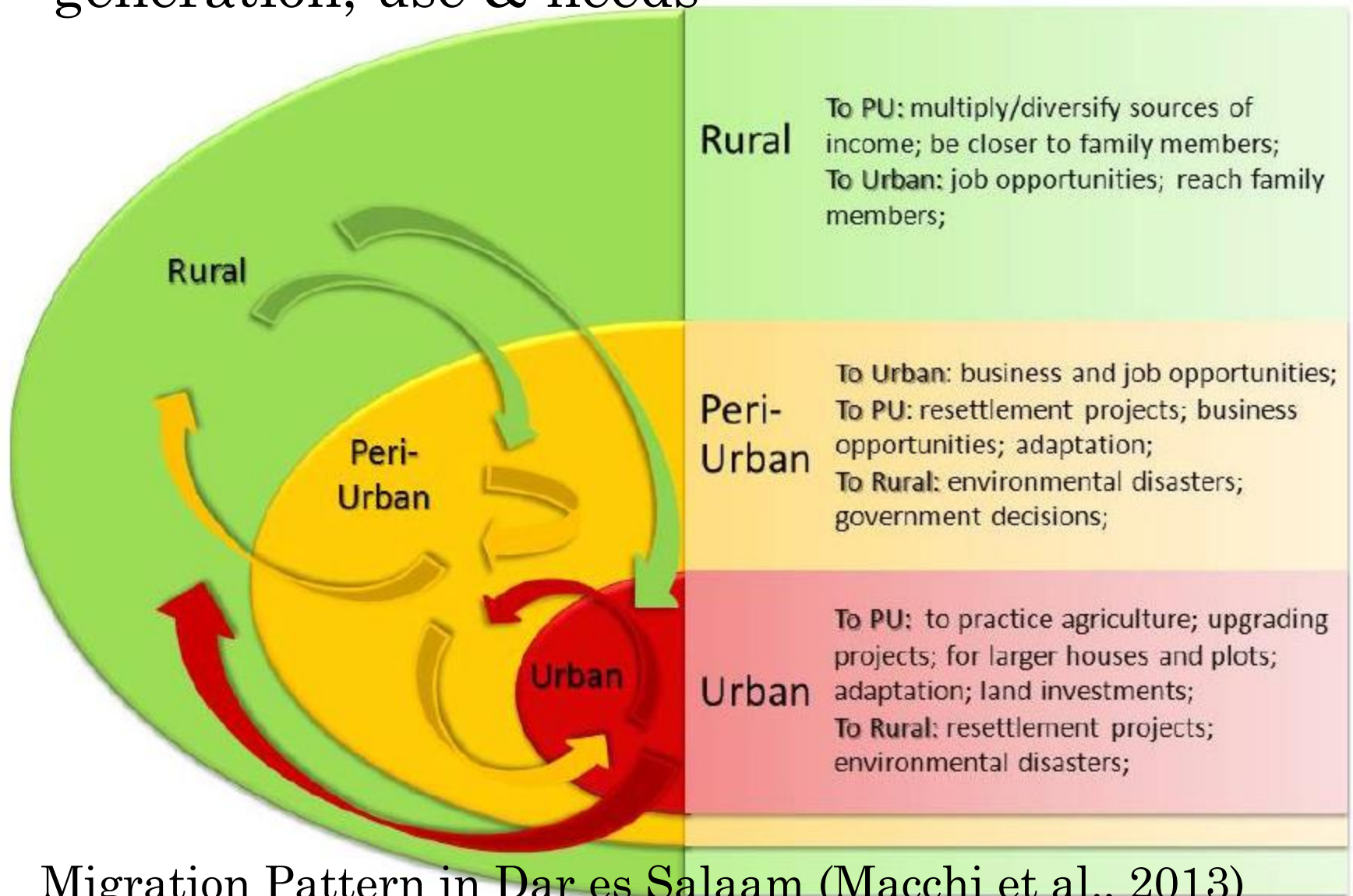
- Analysis of the Impacts of peri-urban land use and climate change on forest ecosystem services, 2010-2014: CCIAM Programme

Summary of Test Statistic (Z) in seasonal and annual rainfall amounts

Station	Record length		Seasonal Trends				
	From	To	Short rains (SON)	Intermediate season (DJF)	Long rains (MAM)	Dry season (JJA)	ANN
Julius Nyerere Int. Airport	1980	2009	-0.642	-1.032	-0.469	-2.232	-2.045
Kisarawe Met. station	1980	2009	-1.784	-1.219	-0.994	-1.895	-2.007



Ardhi University: Open data generation, co-generation, use & needs



Migration Pattern in Dar es Salaam (Macchi et al., 2013)

Ardhi University: Open data generation, co-generation, use & needs



Ardhi University: Open data generation, co-generation, use & needs



Ardhi University: Open data generation, co-generation, use & needs



Traffic Jam A.H Mwinyi Road

Why open data is useful to our research?



Source: UNESCO, 2015

Why open data is useful to our research?

- The notion of openness brings change in the society, provides sustainable solutions for bridging knowledge and digital divides in the society (coherent North-South and South-South) cooperation models.
- The openness also leads to development through the change enablers and local innovators (bring on board prudent, flexible and inclusive innovations for the benefits of the society).



Ardhi University: Potential as for Open data Centre (Urban Environment, Land, Spatial & socioeconomic)

- Open street mapping project (from 2011): Students Training and attachment for open street data collection and mapping
- The ARU Library has been proposed to be re-established as a National Land Use Repository Centre (NLURC)
- Tide Gauge (in collaboration with the Tanzania Ports Authority-TPA, Tanga station) for sea water level & temperature observations
- Project on capacity building in development of sustainable biotechnology for Waste Water Treatment, World Bank Funded, 2010-2014
- Adapting to Climate Change in Coastal Dar es Salaam (ACC DAR), EU Funded, 2011-2014



Ardhi University: Potential as for Open data Centre (Urban Environment, Land, Spatial & socioeconomic)

- ARU is a data centre for the Tanzania State of the Cities Report (TZSoCR) in collaboration with the Tanzania Cities Network- updatable every three years.
- Five key variables were addressed: Governance, Safety and security, Sustainability, Productivity and Inclusiveness
- How do we link our open data related research to industry? How do we create or fill demand of city industry from our research?

