

Peri-urban societies in energy poverty

a cross-national study of governance
addressing Bedouins in Israel and the Roma in
Romania

Research question

What are the main factors that contribute and perpetuate the various aspects of energy poverty in peri-urban communities?

Conceptual background

Energy (in)justice

- **Distributional (in)justice*** and its sources (income, prices, housing, ee)**
*(Rawls, 1971; Sen, 1999; Schlosberg, 2013)
**(Howden-Chapman et al., 2007, 2009; Gibson et al., 2011; Bird and Hernandez, 2012; Harrison and Popke, 2011)
- **Procedural justice**
(Walker and Day, 2012)
- **Recognition justice**
(Walker and Day, 2012; Reames, 2016)
- **4 basic human rights to energy:**
 - healthy and sustainable production
 - Best available infrastructure
 - Affordable energy
 - Uninterrupted energy supply(Hernandez, 2015; McCauley et al., 2013)

Social marginality

- Vulnerability of certain socio-demographic groups
(Preston et al., 2014; Pye et al., 2015)
- Outcomes of energy poverty for vulnerable populations (including ethnic groups)
(Anderson et al., 2012; Liddell and Morris, 2010; Howden-Chapman et. Al., 2007; Klinenberg, 2002; Taylor et al, 2001)
- Association between effects of residential, income and racial/ethnic segregation and the distribution of residential energy disparities
 - Residential segregation ~ social & economic disadvantages (High risk block groups)
(Sampson, 2012; Sharkey,2011; Anthopolosetal,2011, Sampson and Wilson, 1995; Wilson 1987)
 - Income Segregation: Pore households ~ consume less and more intensively
(Fry and Tylor, 2012; Steemers and Yun, 2009; Ewing and Rong, 2008; Adua and Sharp, 2011; Newman and Day, 1975)
 - Housing Segregation by race/ethnicity
(Reames 2016, Logan and Stults, 2011; Denton 1994; Massey and Denton,1993)
- High-inner city energy poverty (lack of funds, coordination of housing & energy policy, understanding the benefits of energy efficiency)
(Hernandez and Bird, 2010; Reames 2016)
- Spatial concentration of EP risks justifies targeted action
"geographical assemblage of networked materialities and socio-economic relations (Harrison and Popke, 2011)
(Reames, 2016; Walker et al. 2013, Hallinan et.al, 2012)

Spatiality

To explain the “Legality - paradox” of EP or the legal obstacles to the right to energy

Lefebvre’s production of space theory and the perceived space - conceived space - lived space relation

Methodology

- **Data collection**

- Research instrument: semi-structured interviews

- **Distributional justice Qs:** Access; accessibility; quality of homes, systems, appliances; behavior; effects of EP; etc.
- **Procedural justice Qs.:** policies/strategies; procedures & criteria; multi-agency collaboration
- **Recognition justice Qs.:** relevance of access to energy, recognition of energy justice, cultural understanding

- Recruitment of interviewees:

- Maximum variation sampling
- Direct snowball method

- OBJECTIVE:**

- Look at EP from different angles: stakeholders of various backgrounds

- **Data analysis**

- Primary data analysis, data collected through interviews
- Analysis of secondary data

Case study 1: Romania

- Informal housing (~ 60.000 hh)
- Typical description:
 - spatial isolation: peri-urban
 - ethnically concentrated
 - economic & social deprivation
 - Sub-standard & over-populated homes
 - Sub-standard access to facilities
 - Illicit electricity consumption (70%) & no alternatives
 - Heating & cooling
- Largest communities:
 - Ferentari (Bucharest)
 - Pata-Rat (Cluj)
- EP: >20%
- Access: based on identity and property documents
- Accessibility: income based
- EP remedy system:
 - Non-financial protection (Age, health issues, social marginalization)
 - Financial protection
 - Heating benefits
 - Gas
 - Electricity
 - Social tariff

Case study 2: Israel

- Around 240.000 Bedouins live in the Negev area, around 40% live in unrecognized settlements
- Typical description:
 - spatial disparities: spread across the desert
 - Spatial isolation – recognized settlements as monolith communities
 - ethnically concentrated
 - economic & social deprivatation
 - Sub-standard & over-populated homes, clan based society
 - Sub-standard access to facilities
 - Illicit electricity consumption & use of PVP and diesel generators.
- Access: based on building permits and no land disputes, access facilitated inside the BLUE LINES;
- Accessibility: income and revenues; land disputes and past experiences in creating settlements;
- Cultural and Environmental: different understandings of space and land; communities are spread across the desert – is it sustainable to create and maintain the infrastructure for all; transition from diesel generators to PVP.

Case Study 2: Israel

- **Factors**

- Poverty
- Administrative procedures (1)
- Administrative procedures (2)
- Political (1)
- Political (2)
- Cultural
- Environmental (1)
- Environmental (2)

- **Impact**

- Few afford to connect to the grid or stay in legal settlements
- Procedures to build a house, connect to the grid
- BLUE LINES
- LAND disputes
- Former (70's-80's) policies to create the new settlements
- Different understandings of space and land
- Spread community – cost and sustainability of infrastructure for all
- Transition from diesel generators to PVP

Some conclusions

RO

- **Legal & relief system-based**
 - Connection is conditioned upon possession of documents
 - Illicit consumption is wide-spread and are dealt with coercively (court cases & police intervention)
 - Non-financial measures: No criteria for issues other than health related
 - Heating benefits reduced due to nominal increase in minimal wage
 - Access to benefits is application based – too complicated for many
 - Exclusion criteria applied inconsistently
 - Social tariff is a source of EP
 - Electricity heating benefits are exclusive and have been halved
- **Socio-economic**
 - Accessibility is limited due to general social and economic deprivation
 - Social & economic marginalization rather than traditional component
 - Interaction with bureaucracy is based on mutual mistrust
- **Structural (Energy system)**
 - Lack of alternative sources of energy
 - Bad housing and access depends upon short-term politics
- **Market**
 - Difficult road to free energy market: regulations
 - Competition: private actors come with solutions/not always interested to reduce EP (social tariff)
- Notable Good practice: community mediator “the Rodica institution”

ISR

- **Legal & relief system-based**
 - Connection is conditioned upon possession of documents
 - Connection is conditioned on (lack of) land disputes
 - Connection is possible only inside the BLUE LINES
 - Illicit consumption is wide-spread and are dealt with coercively (court cases & police intervention)
 - No social measure (financial and non-financial) to ease the access to electricity
- **Socio-economic**
 - Accessibility is limited due to general social and economic deprivation
 - Social & economic marginalization rather than traditional component
 - Interaction with bureaucracy is based on mutual mistrust
- **Structural (energy system)**
 - Alternative solutions: PVP & diesel generators, not encouraged by the state
- **Market**
 - No free market with regard to network
 - Rising competition on the PV market
- **Cultural Understandings**
 - Different understandings of space
 - Shift in mentalities, new generation asking for technology and modern standard of living