The UNDP social exclusion index for Europe and Central Asia
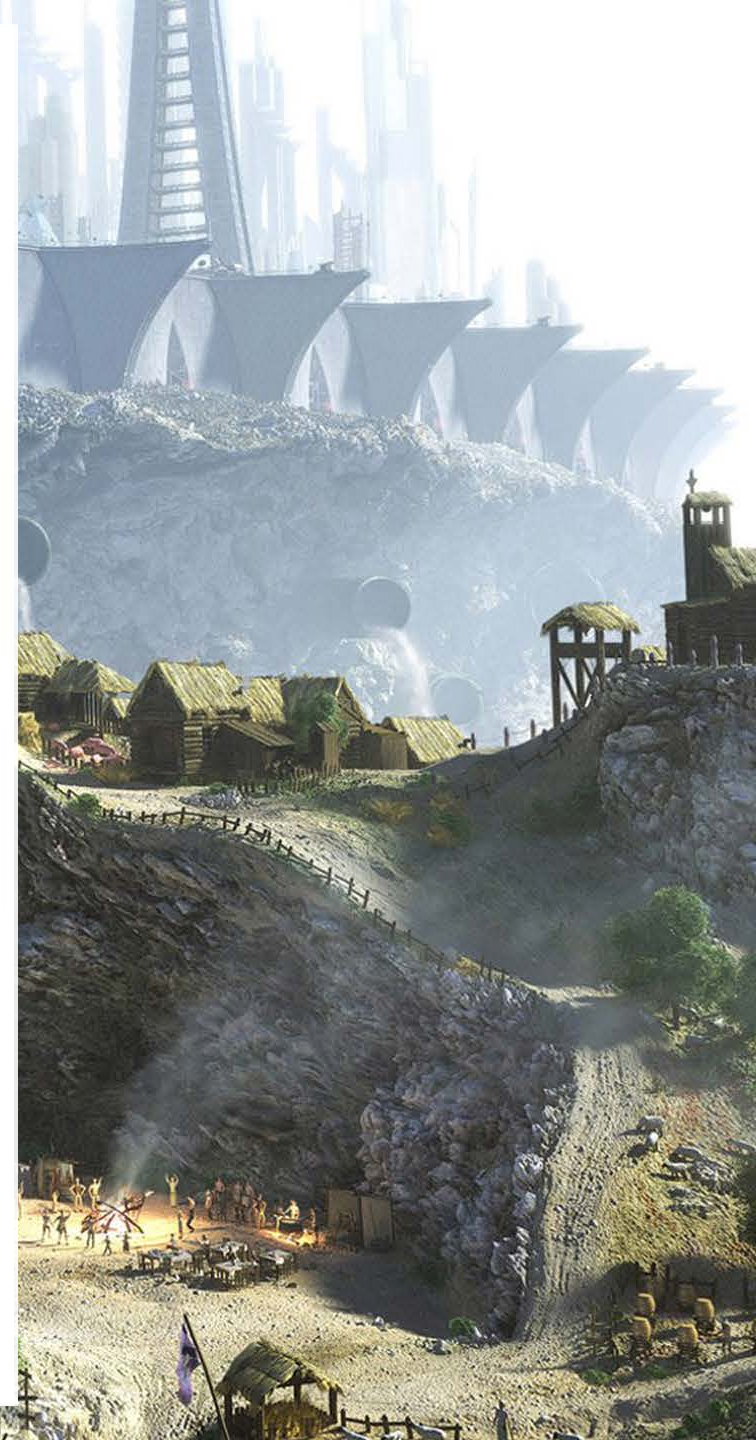

Mihail Peleah, UNDP Istanbul Regional Hub

Presentation at the Seminar on regional well-being indicators (Development of the Inclusive Society Index), 19 October 2016, Brussels
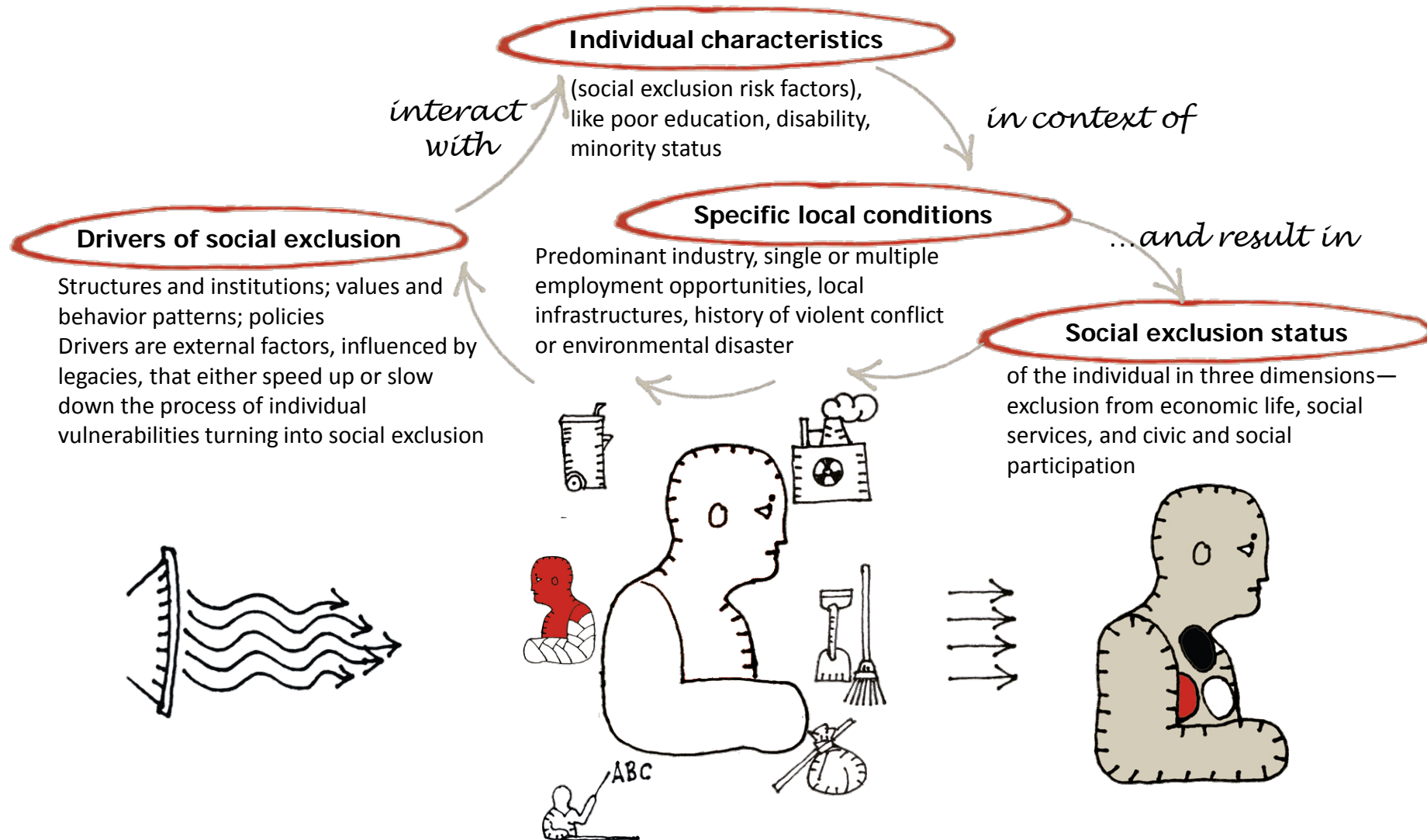
Why?

Why the index?

- **Objective and multidimensional** measure of social exclusion

- Measure **status** excluded or non-excluded, not 'perception' or 'risk'

- Applicable for Europe and Central Asia **region**

- Useful for **policymaking**

All models are wrong.
But some are useful

Social Exclusion Chain

Individual characteristics

(social exclusion risk factors), like poor education, disability, minority status

interact with

in context of

Drivers of social exclusion

Structures and institutions; values and behavior patterns; policies
Drivers are external factors, influenced by legacies, that either speed up or slow down the process of individual vulnerabilities turning into social exclusion

Specific local conditions

Predominant industry, single or multiple employment opportunities, local infrastructures, history of violent conflict or environmental disaster

…and result in

Social exclusion status

of the individual in three dimensions—exclusion from economic life, social services, and civic and social participation

Region and Study

- Large and diverse region
  - What is 'typical' Central Asia country?
  - What is 'typical' Western Balkans country?

- Russia* and Turkey are BIG

- Approach
  - National studies
  - Regional survey:
    - Kazakhstan and Tajikistan,
    - Moldova and Ukraine,
    - Macedonia FYR and Serbia
    - (+Armenia)
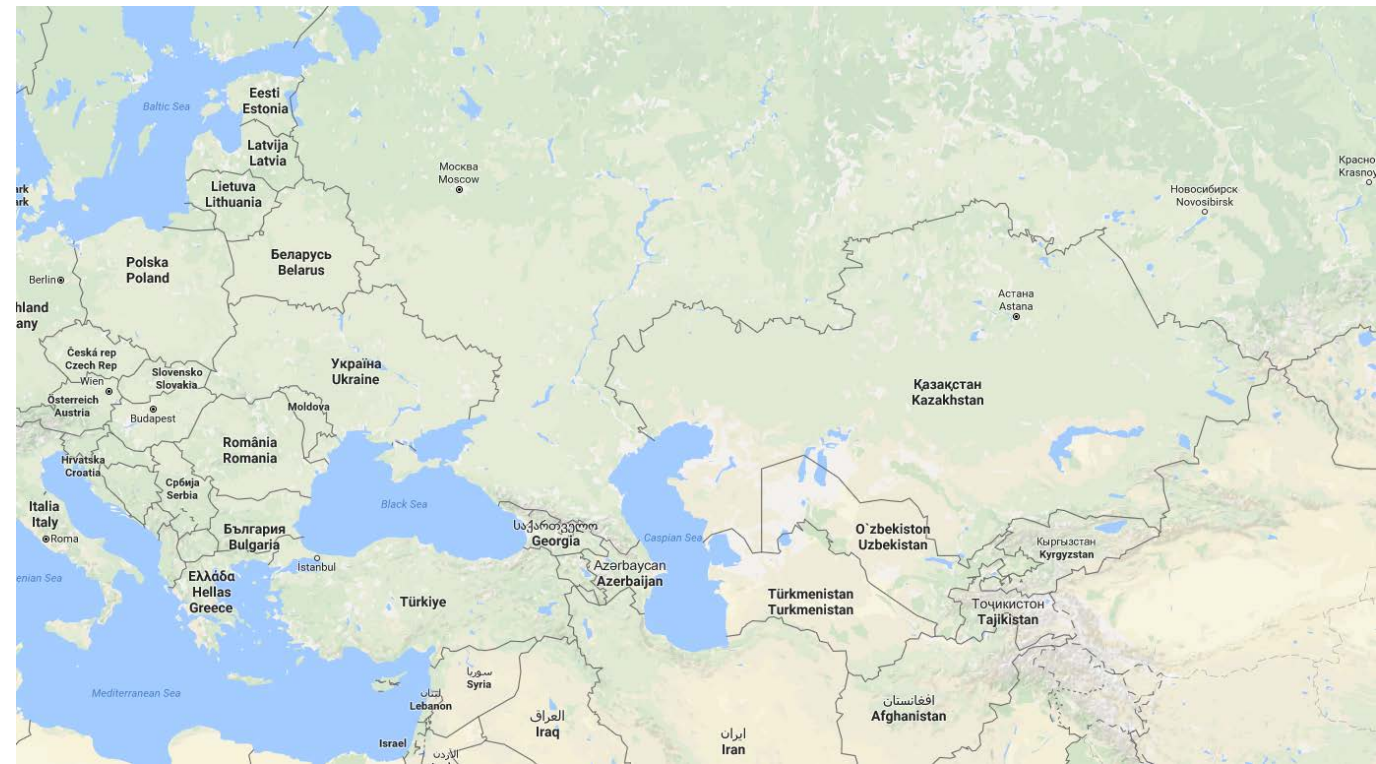
* Russia was UNDP programme country at the time of study

How?

How? Construction of index

- Based on Alkire-Foster (2009) double cut off method
- 'Deprivation line' in each dimension—what it mean to be deprived in X?
  - Theory, Expert advise
  - Let data talk
- 'Poverty line' for multidimensional poverty—how many accumulated deprivations (k) makes one excluded?
  - Theoretical considerations
  - Test possible k
  - Less interested in number of excluded, more in **why** they are excluded
- Weighting
  - Within dimension, between dimensions
  - Normative
  - Values and preferences
  - Simplest—equal weights

Multidimensional poverty

How? Construction of index

- 3 areas of exclusion
  - Economic exclusion
  - Exclusion from public services
  - Exclusion from civic and political participation
- 24 indicators, 8 per area
- Equal weights
- Threshold is 9 out of 24

Social Exclusion Index

H—Social Exclusion Headcount

Sensitive to breadth, not depth of exclusion

H=0.600 (3 out of 5)

A—Average Share of Deprivations among Excluded

Sensitive to depth of exclusion

A=0.500 (5 out of 10)

M0=H▪A—Social Exclusion Index

Sensitive both to breadth and depth of exclusion

M0=0.600•0.500=0.300

Economic Exclusion

- Inequality: At-risk-of-poverty rate (60 percent of median equivalent expenditures in a country)

- Subjective basic needs: In the past 12 months the household has not been able to afford three meals a day, or pay bills regularly, or keep the home adequately warm, or buy new clothes and shoes

- Employment: Being unemployed or a discouraged worker

- Financial services: Lack of access to a bank account on one's own name

- Material deprivation housing: The household cannot afford a bed for every member of the household

- Material deprivation amenities: Household needs a washing machine, freezer or microwave but cannot afford one

- Material deprivation ICT: Household needs a computer or internet but cannot afford one

- Overcrowding: Household with less than 6m2 per person

Exclusion from public services

- Public utilities: Household with no running water or sewerage system

- Public utilities: Household heats with wood or with no heating device

- Education: Low educational achievements (basic schooling) and early school leavers

- Education: Household could not afford to buy school materials for every child in the past 12 months

- Education: Household with young children not in school or pre-school

- Health care: Household could not afford medication or dental checks for every child in the past 12 months

- Health care: Medical needs not being met by the health care system

- Social infrastructure: Lack of opportunities to attend events due to distance (lack of transportation)

Exclusion from civic and political participation

- Social capital: Rare or infrequent social contact with family or relatives

- Social capital: Rare social contact with friends

- Social capital: Lack of support networks that could help in the event of emergency

- Social participation: In the past 12 months the household has not been able to afford inviting friends or family for a meal or drink at least once a month

- Social participation: The household has not been able to afford to buy books, cinema or theatre tickets in the past 12 months

- Civic participation: Inability to vote due to lack of eligibility or distance to polling station

- Civic participation: No participation/membership in associations, teams or clubs

- Civic participation: No participation in political/civic activities

Data

- Regional Survey: 6 Countries
  - 2 Balkans: Macedonia FYR, Serbia
  - 2 Central/Eastern Europe: Moldova, Ukraine
  - 2 Central Asia: Kazakhstan, Tajikistan
  - + Armenia
- Extensive questionnaire
  - Diagnostics of possible use with regular HBS in Albania, Moldova, Ukraine
- Secondary source contextualization: in extend possible
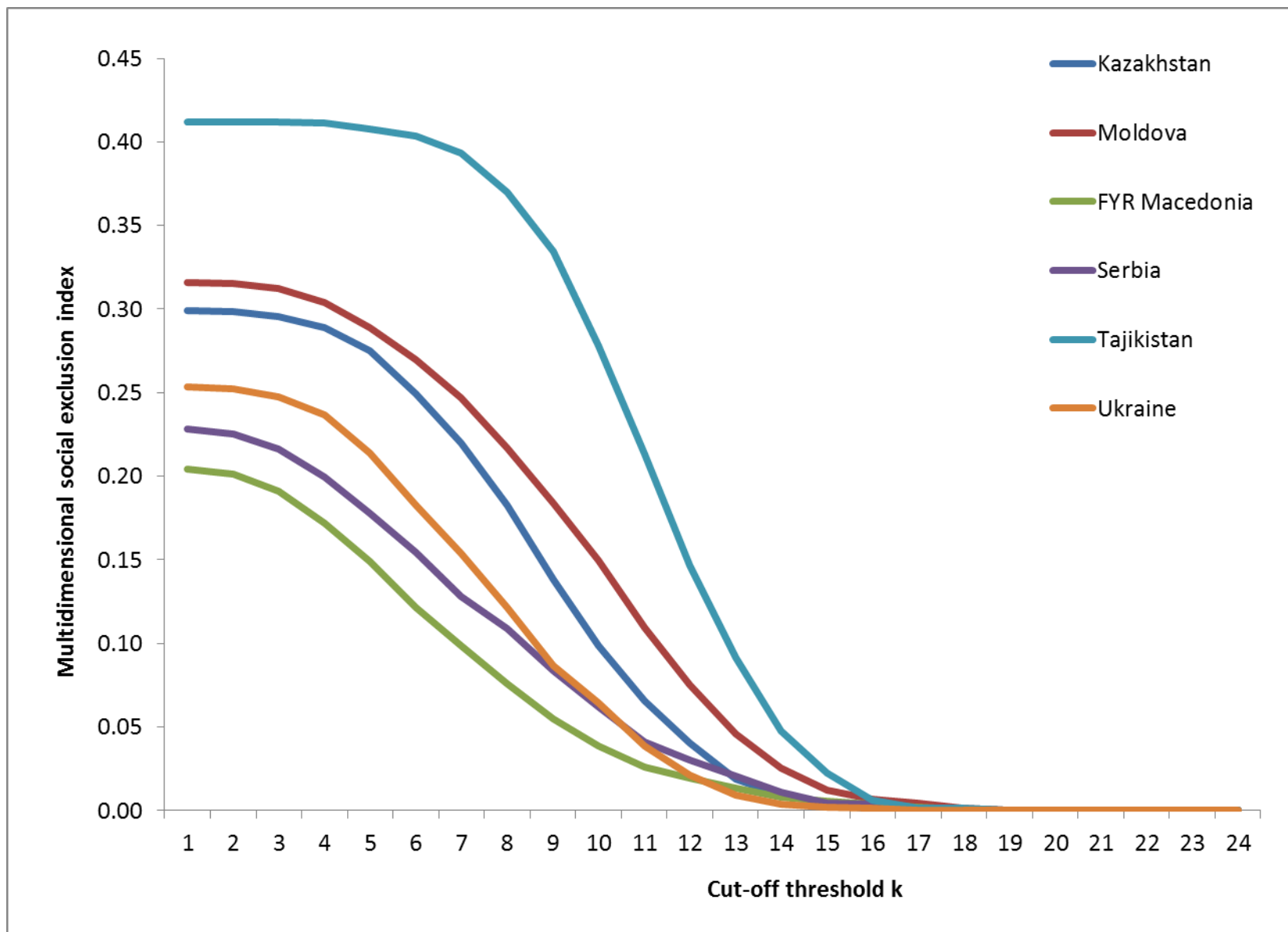- Stata code for M0 calculations

Robustness check

- Be prepared for MANY iterations
- Check relevance of variables
- Check for various k
- Check for correlation of exclusion variables
- Check for index if some variables dropped out
    - Variables of questionable quality (income/expenditures)
    - Highly correlated variables
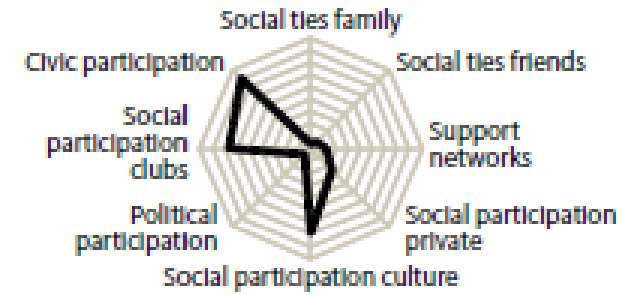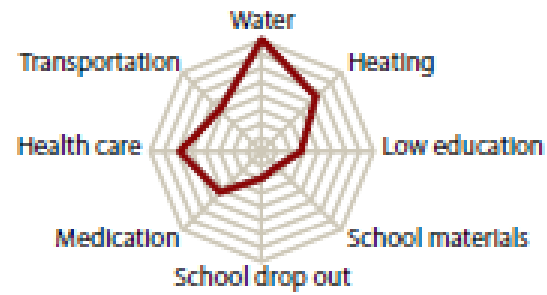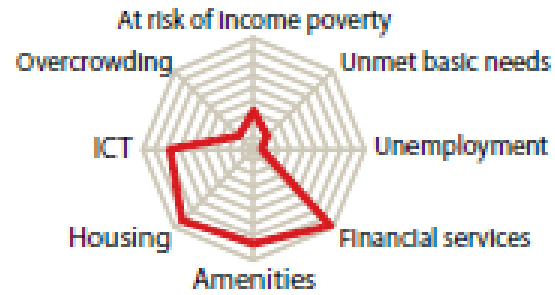
Correlation between indicators

	ex_incpov	ex_subjpovbn	ex_labmark	ex_bank	ex_living	ex_housing	ex_ictxs	ex_crowd	ex_water	ex_heating	ex_lowedu	ex_nobooks	ex_nosch	ex_hlthaff	ex_hltsrv	ex_culturev	ex_norelnet	ex_nofrdnet	ex_nohelp500	ex_noout	ex_nocultr	ex_voting	ex_nomember
ex_incpov																							
ex_subjpovbn	0.074																						
ex_labmark	0.117	0.017																					
ex_bank	0.127	0.074	0.094																				
ex_living	0.092	0.110	0.002	0.262																			
ex_housing	0.125	0.114	0.029	0.282	0.479																		
ex_ictxs	0.123	0.048	0.048	0.258	0.361	0.469																	
ex_crowd	0.074	0.059	-0.011	0.104	0.211	0.153	0.159																
ex_water	0.206	0.082	0.002	0.315	0.325	0.340	0.299	0.080															
ex_heating	0.173	0.037	0.043	0.021	0.126	0.100	0.069	0.038	0.182														
ex_lowedu	0.131	0.113	0.009	0.144	0.116	0.137	0.076	0.066	0.167	0.162													
ex_nobooks	-0.017	0.140	-0.017	0.039	-0.106	-0.012	-0.074	-0.072	-0.013	-0.079	0.083												
ex_nosch	0.029	0.042	-0.012	0.070	0.162	0.091	0.051	0.108	0.074	0.091	0.055	-0.094											
ex_hlthaff	0.034	0.244	-0.003	0.175	0.108	0.130	0.036	0.028	0.136	-0.037	0.122	0.441	0.022										
ex_hltsrv	0.084	0.034	0.015	0.174	0.178	0.209	0.155	0.068	0.139	0.030	0.107	0.035	0.029	0.100									
ex_culturev	0.096	0.037	0.064	0.123	0.079	0.160	0.185	0.026	0.140	0.044	0.061	0.029	0.005	0.076	0.140								
ex_norelnet	0.023	0.100	-0.022	0.029	-0.018	0.020	-0.022	-0.007	0.028	0.025	0.047	0.121	-0.044	0.100	0.054	0.008							
ex_nofrdnet	0.041	0.068	-0.011	0.062	-0.001	0.058	0.012	0.013	0.043	-0.029	0.120	0.123	-0.016	0.152	0.067	0.016	0.141						
ex_nohelp500	0.036	0.123	0.003	0.084	-0.011	0.049	0.056	0.009	0.037	-0.040	0.101	0.153	-0.042	0.143	0.050	0.107	0.094	0.171					
ex_noout	0.070	0.194	0.023	0.116	0.109	0.112	0.023	0.050	0.099	0.021	0.127	0.157	0.049	0.248	0.112	0.056	0.063	0.154	0.131				
ex_nocultr	0.173	0.159	0.062	0.193	0.171	0.247	0.149	0.048	0.244	0.127	0.206	0.263	0.031	0.279	0.151	0.206	0.074	0.118	0.149	0.204			
ex_voting	0.006	0.012	0.008	0.065	0.058	0.060	0.054	0.011	0.030	0.020	0.033	-0.005	0.018	0.017	0.032	-0.020	0.052	0.021	0.017	0.005	0.001		
ex_nomember	0.097	0.086	0.047	0.179	0.022	0.111	0.102	0.023	0.137	-0.013	0.160	0.115	0.012	0.136	0.017	0.170	0.032	0.093	0.124	0.081	0.228	-0.014	
ex_nocivact	0.007	0.059	0.005	0.092	0.018	0.018	0.039	0.016	0.050	-0.034	0.063	0.085	0.018	0.055	-0.043	0.069	-0.038	0.017	0.053	0.003	0.072	0.005	0.231

Profiles of exclusison

Tajikistan

Percentage of people deprived in each indicator by social exclusion status

Indicator	People who face this deprivation but are not excluded	People who face this deprivation and are excluded
Incomes: At risk of poverty rate (60% of median equivalent expenditures)	12%	16%
Subjective basic needs: Unable to meet basic needs	2%	6%
Employment: Unemployment	4%	5%
Financial services: no bank account on own name	34%	32%
Housing deprivation: Unable to afford a bed for every HH member or living room furniture	5%	19%
Amenities: can't afford washing machine, freezer or microwave	13%	27%
ICT: can't to afford a computer or internet	18%	26%
Overcrowding: households with less than 6m2 per person	1%	4%
Public utilities: Households with no running water or sewerage system	21%	29%
Public utilities: Households heating with woods or with no heating	20%	20%
Education: Low educational achievements (basic schooling) and early school leavers	6%	12%
Education: Unable to afford buying books for children	13%	12%
Education: Household with children not in school / pre-school	2%	4%
Health care: Unable to afford medication or dental checks for children	7%	16%
Health care: Unmet medical needs due to barriers in health care system	22%	24%
Cultural opportunities: Unable to afford to attend cultural events or unable to attend due to distance	18%	21%
Social capital: rare or seldom contact with family/relatives	3%	3%
Social capital: dare contact with friends	2%	3%
Social capital: Lack of support networks that could help in emergency situation	6%	8%
Social participation: can't afford socialising with friends or family	3%	8%
Social participation: can't afford buying books, go to cinema or theatre	20%	29%
Civic participation: No participation in elections due to eligibility or distance	1%	2%
Civic participation: No participation/membership in associations, teams or clubs	36%	29%
Civic participation: No participation in political/civic activities	53%	32%

■ People who face this deprivation but are not excluded ■ People who face this deprivation and are excluded □ Contribution to exclusion

Adding local context: Three steps

- Regional study
  - In-study contextual data
  - Contextualization by experts
- Armenia
  - Secondary sources at regional level
- Serbia
  - Secondary sources at municipal level
  - Extended set of indicators
  - Some econometrics
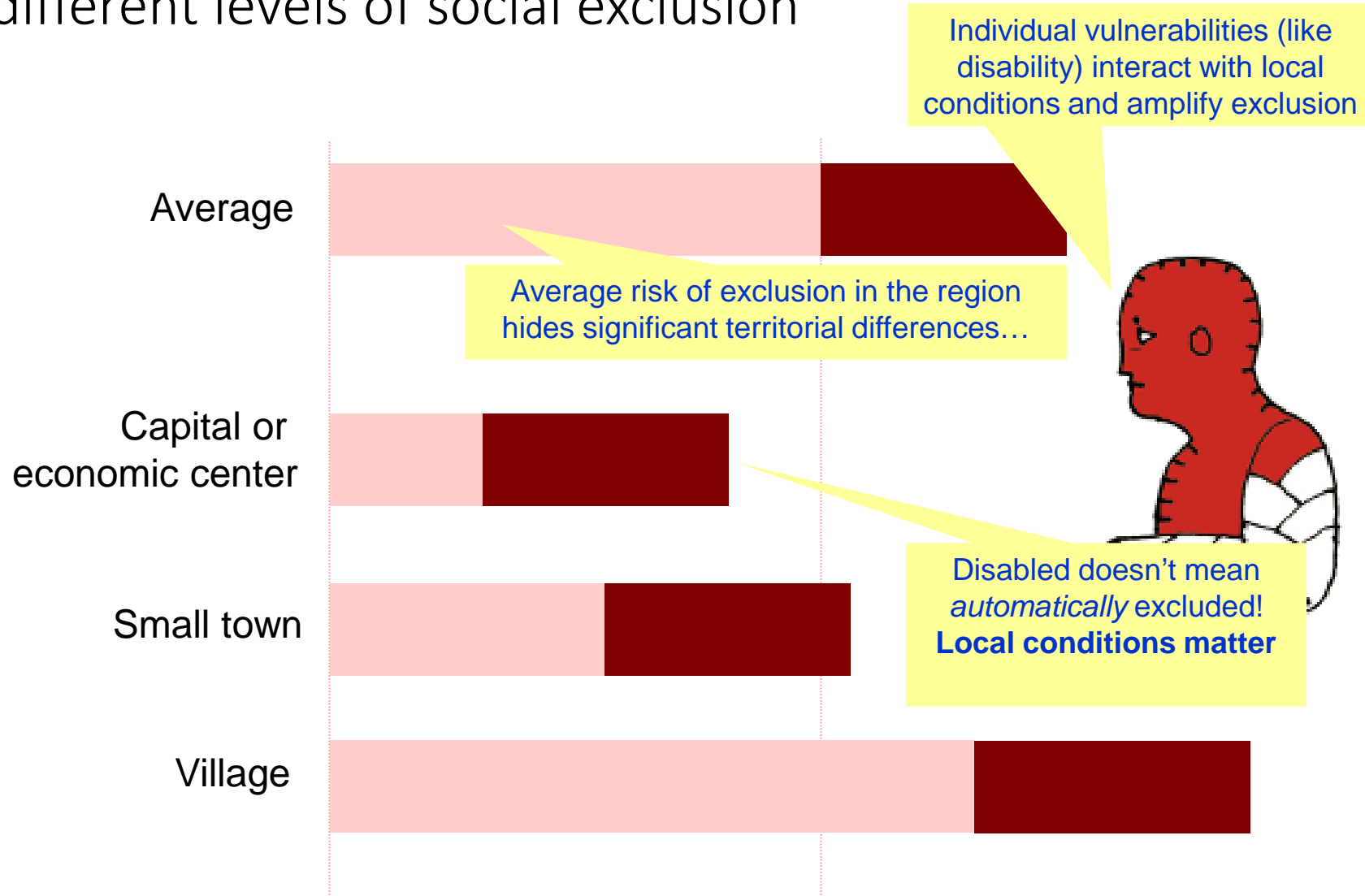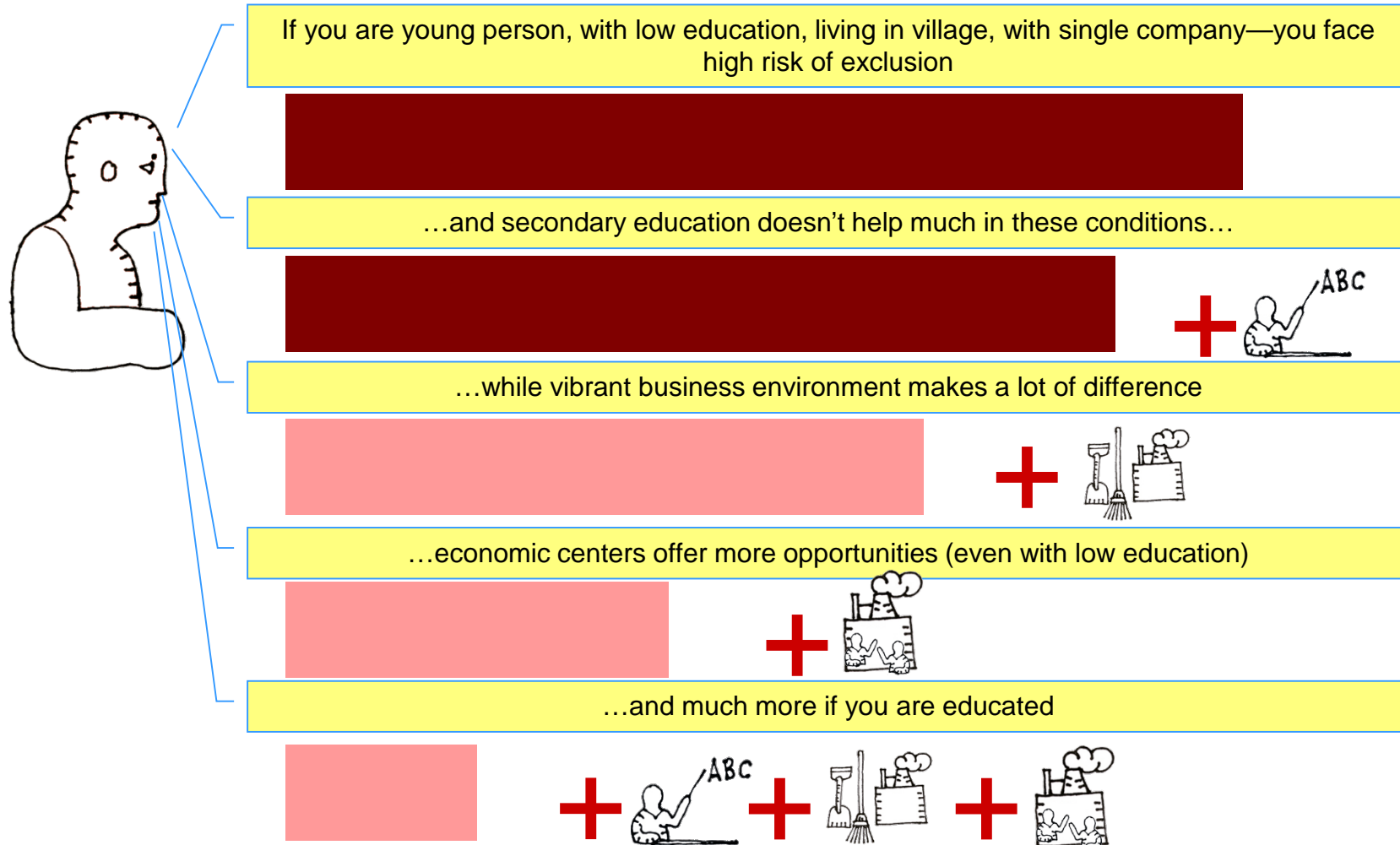
Secondary Source Contextualization
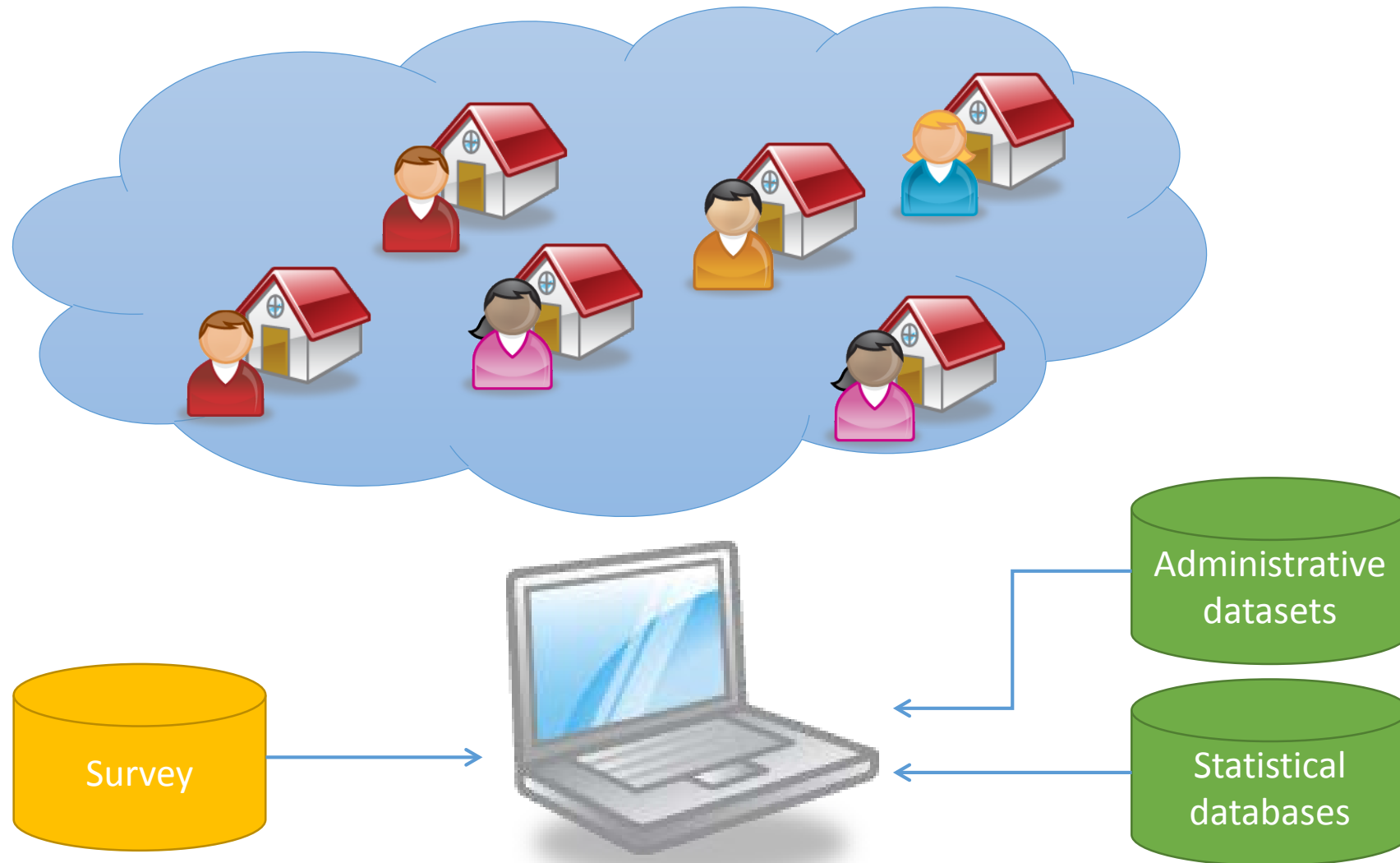
So what?

Different combinations of individual risks, drivers and local context results in different levels of social exclusion

Source: RHDR "Beyond Transition: Toward Inclusive Societies", 2011

Different combinations of individual risks, drivers and local context results in different levels of social exclusion

If you are young person, with low education, living in village, with single company—you face high risk of exclusion

…and secondary education doesn't help much in these conditions…

…while vibrant business environment makes a lot of difference

…economic centers offer more opportunities (even with low education)

…and much more if you are educated

Including in regular monitoring: opportunities and risks

- Opportunities
  - Provides comprehensive picture of exclusion
  - Could track progress both in breadth and depth
  - Useful for policymaking
  - Could be added as a module to regular surveys

- Caveats and Risks
  - Data voracious—all data should come for the same household
  - Tweaking indicators requires time and effort
  - Computing code is a bit tricky, esp. if weights are involved, SPSS is a bad option

Use for monitoring: example of MPI
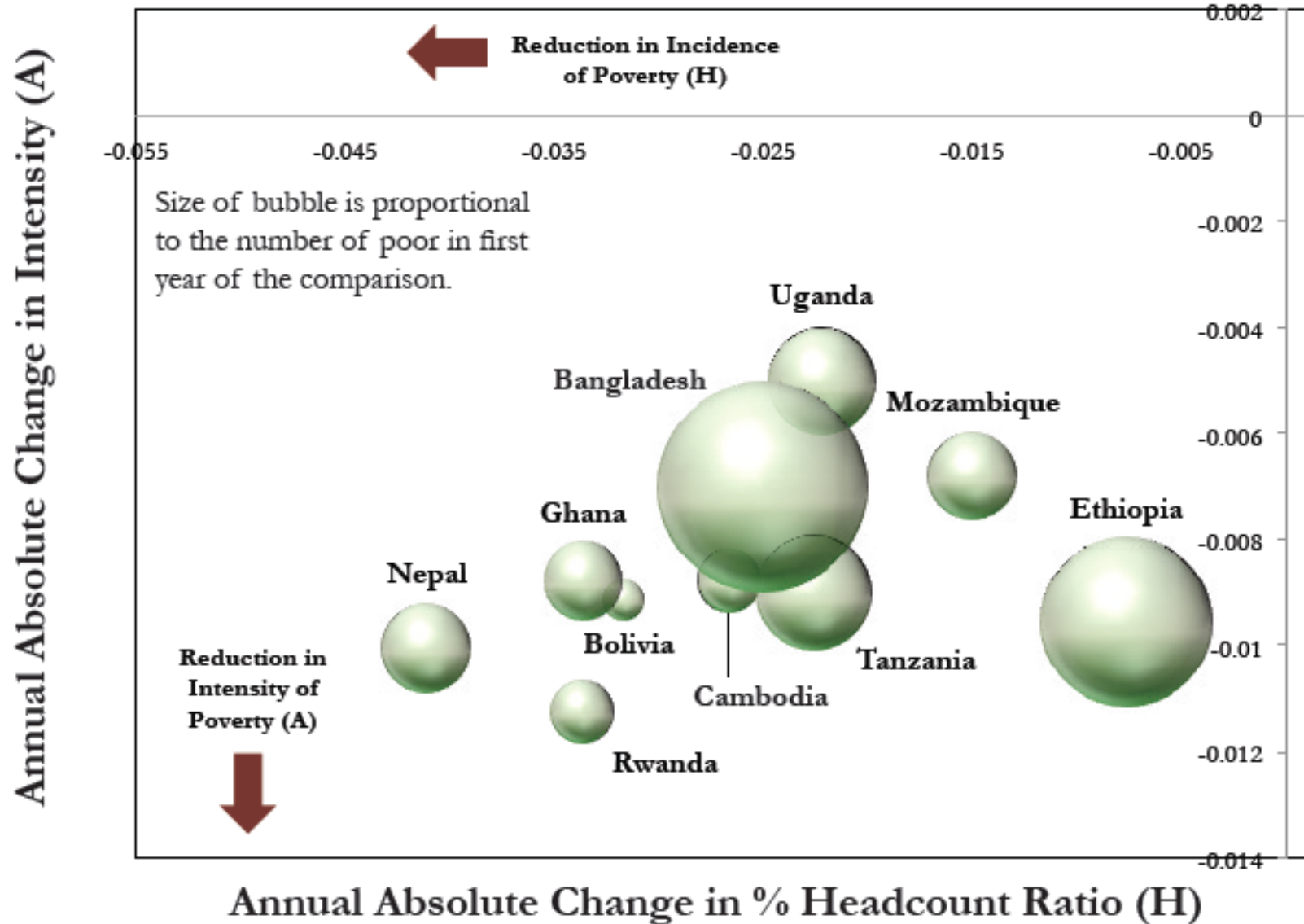
Thank you!

Mihail Peleah, UNDP Istanbul Regional Hub

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Useful links:
- UNDP work on Social Inclusion
- Beyond transition: Towards Inclusive Societies, Regional Human Development Report on social inclusion, 2011
- Working paper on Social Exclusion Index Methodology