



Determinants of community participation against toxic pollution in Huichapan, Mexico

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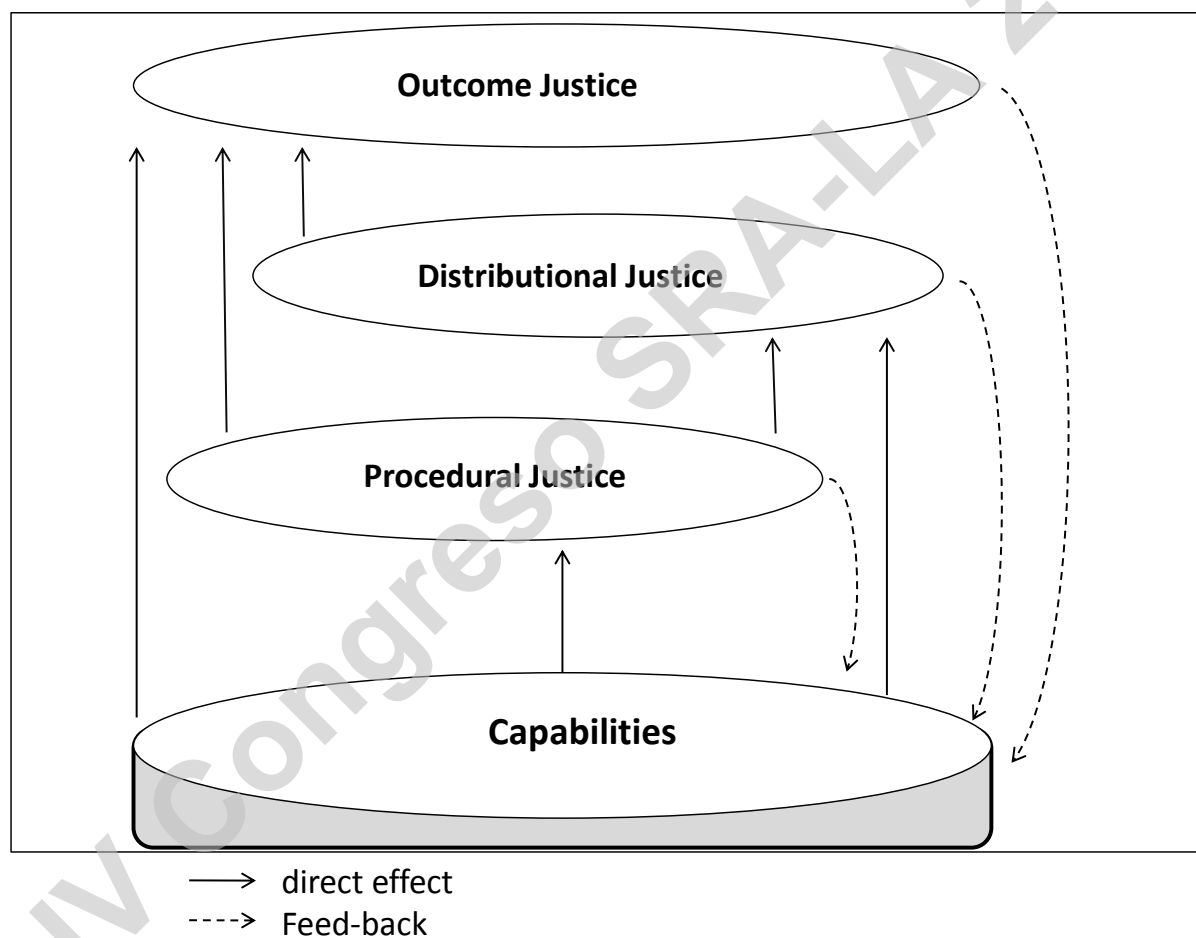
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- 1. Environmental justice**
 - 2. Case Study: toxic pollution in Huichapan**
 - 3. Determinants of community participation**
 - Concern, attitude, and social pressure**
 - Individual capabilities**
 - 4. The biographical capability approach**
- Conclusions**

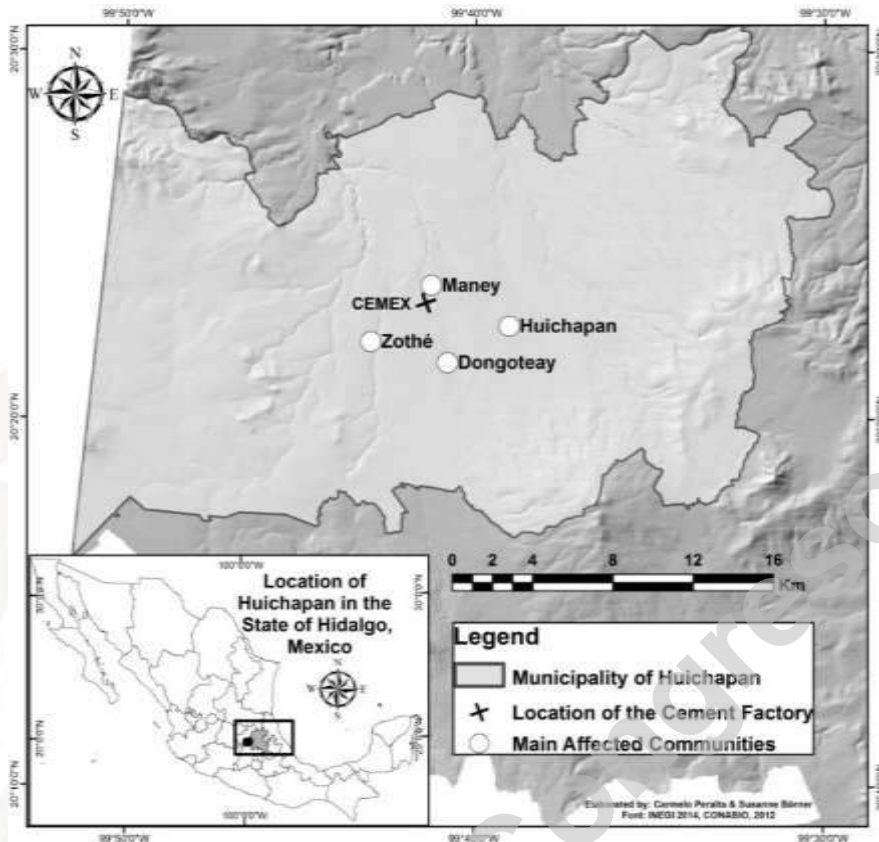
- Disproportionate exposure to **environmental risks**; and/or
- Unequal **access to environmental resources** and goods; and/or
- Restricted **capacities to participate** in environmental decision-making processes (deprived neighbourhoods!)
- **Pluralistic perspective** on the interactions of distribution, participation, recognition, and individual capabilities
- **From distribution to participation**



Pluralistic conception of environmental justice



Toxic pollution in Maney, Huichapan, Mexico



- Incineration of waste in a CEMEX cement-kiln (co-processing of municipal solid and chemical waste) in Huichapan;
- Contamination of residential and farming areas with dioxins and furans;
- Residents complain about odors and health issues



- **Ciudadanos Unidos para el Medio Ambiente (CUMA):** grassroots community mobilisation founded in 2012;
- **50-60 participants** from the neighbourhood of Maney, Huichapan, located closely to the **CEMEX cement factory** in Huichapan;
- **Driving force:** one of the more affluent families, NGO, local priest;
- **Demands:** abolish waste incineration



Characteristics of the study area

- **Toxic pollution (external polluter);**
- **Semi-rural area with few employment opportunities;**
- **Vulnerability of the population;**
- **Indicators of deprivation: income, employment, education and housing conditions;**
- **Part of the population depends on CEMEX for income;**

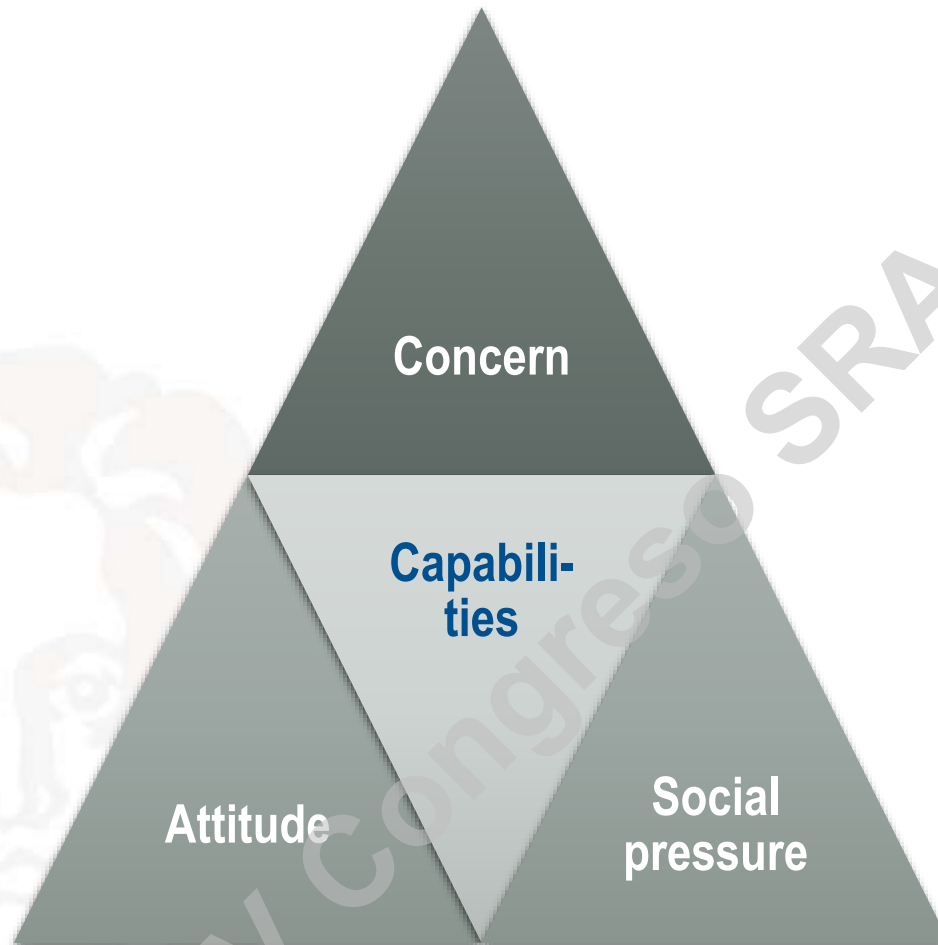
What drives community grassroots mobilisation in response to environmental toxic pollution? How can we explain non-participation?

(1) Role of concern, attitudes to participation, social pressure

(2) Role of individual capabilities for participation

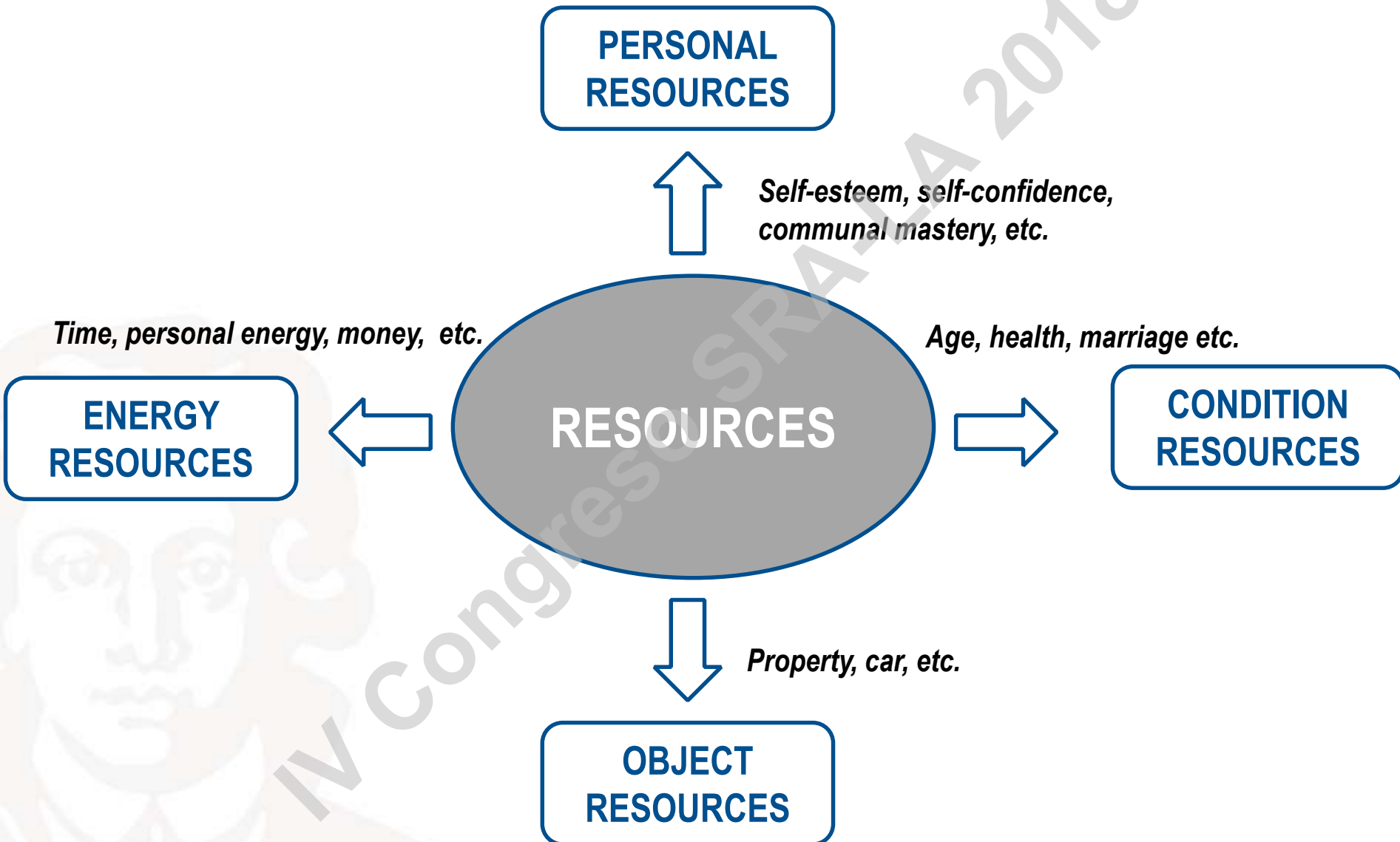
(3) Biographical perspective

- How have *resource gains and losses* over time shaped respondents' sense of self-efficacy, and hence their participation behaviour?



- **Concern linked to perceptibility of the pollutant;**
- **Gap between perception-concern-participation;**
- **Pro-social attitude: Defending the most vulnerable, community spirit**
- **Attitude as to the effectiveness of participation**
- **Peer-pressure from neighbors and families as a polarizing factor**
- **Capacity to participate in grassroots mobilization**

Hobfoll's resource categories (*capabilities)





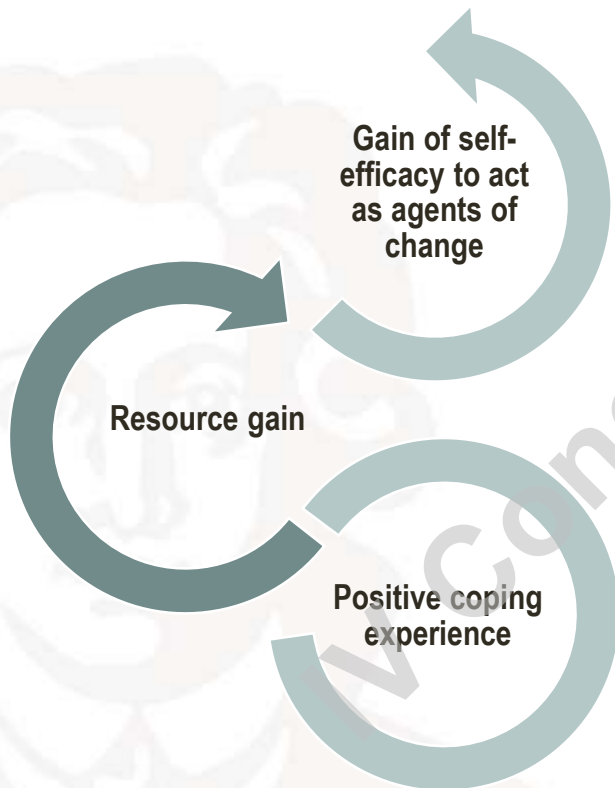
Capability approach (Sen and Nussbaum)

Hobfoll's Conservation of Resources Theory

- **Capabilities of the individual** to lead a flourishing and self-determined life;
- **Injustice** is more than an unjust distribution of goods: it also means limiting the potential of human functioning;
- **Operationalization of the capability approach:** Hobfoll's resources as parallels to Sen's/Nussbaum's capabilities

- **Resource gain and loss cycles** over time may be indicative of an individual's development of a **sense of self-efficacy** to act as an agent of change.
- The **more resources** people have, the **higher their self-perceived efficacy** to shape their own environment.

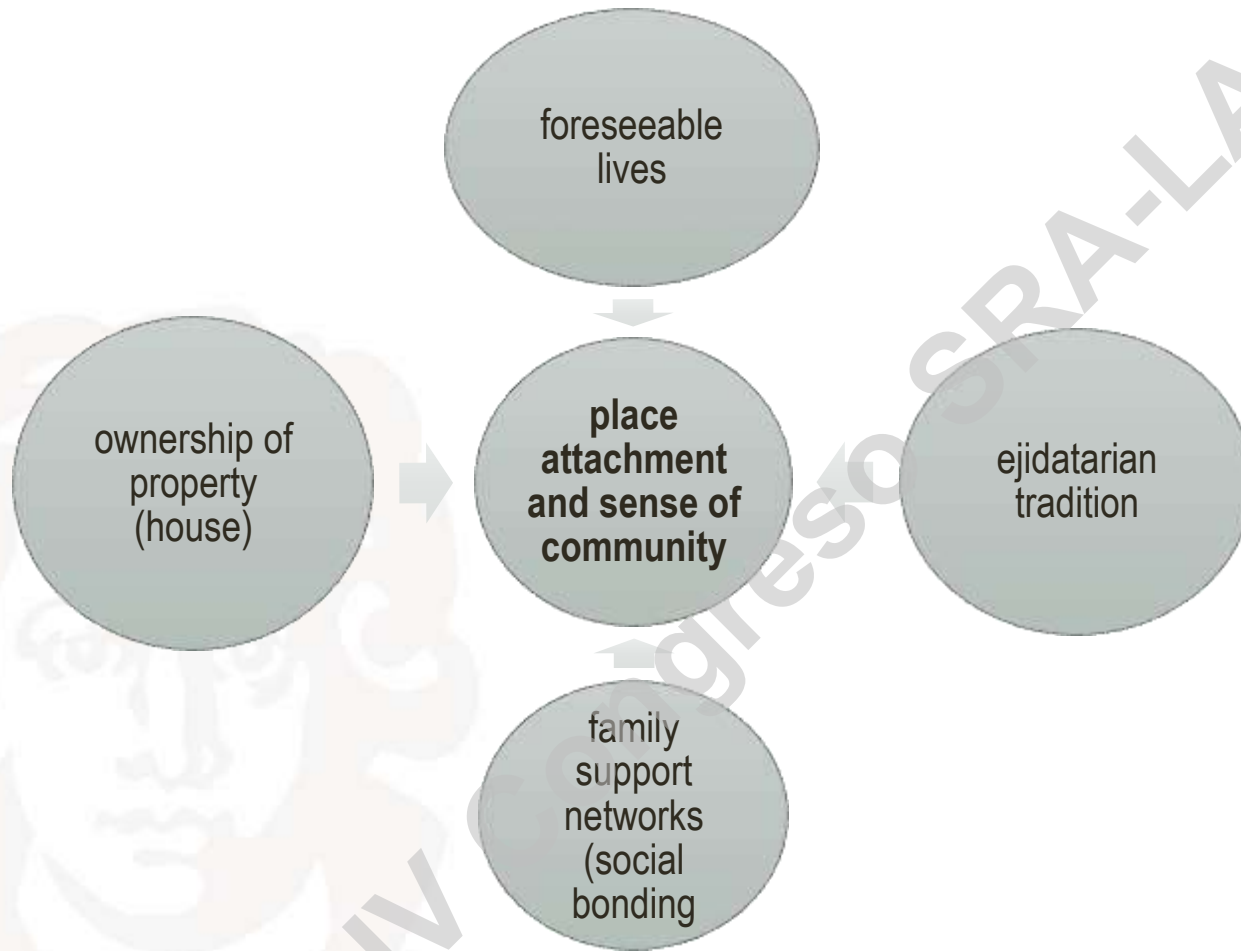
Resource gain cycle



Resource loss cycle

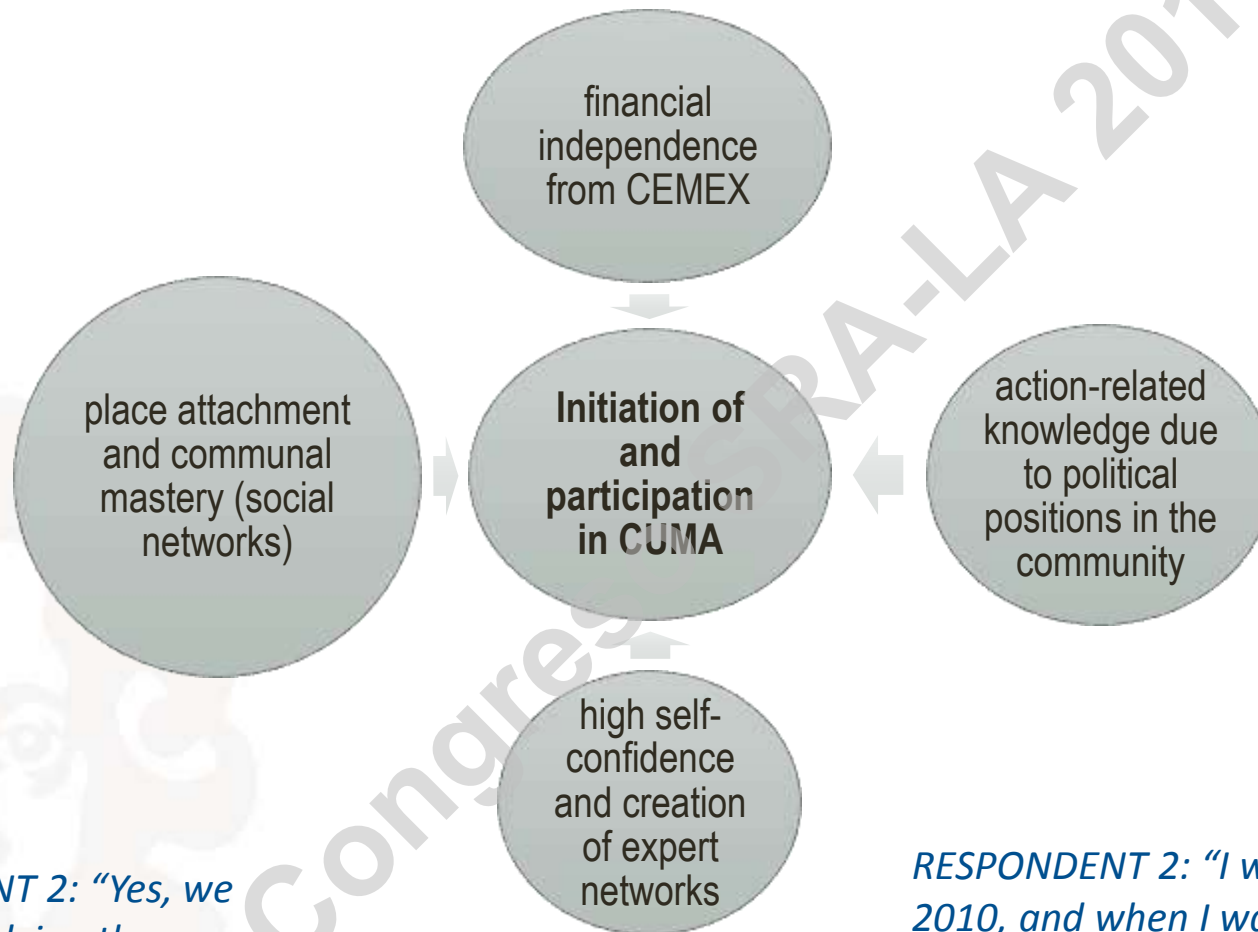


The role of place attachment for participation (active and non-active residents)



RESPONDENT 5: "I think this is part of your roots, like part of where you are from [...]. You have your roots here, everything, don't you."

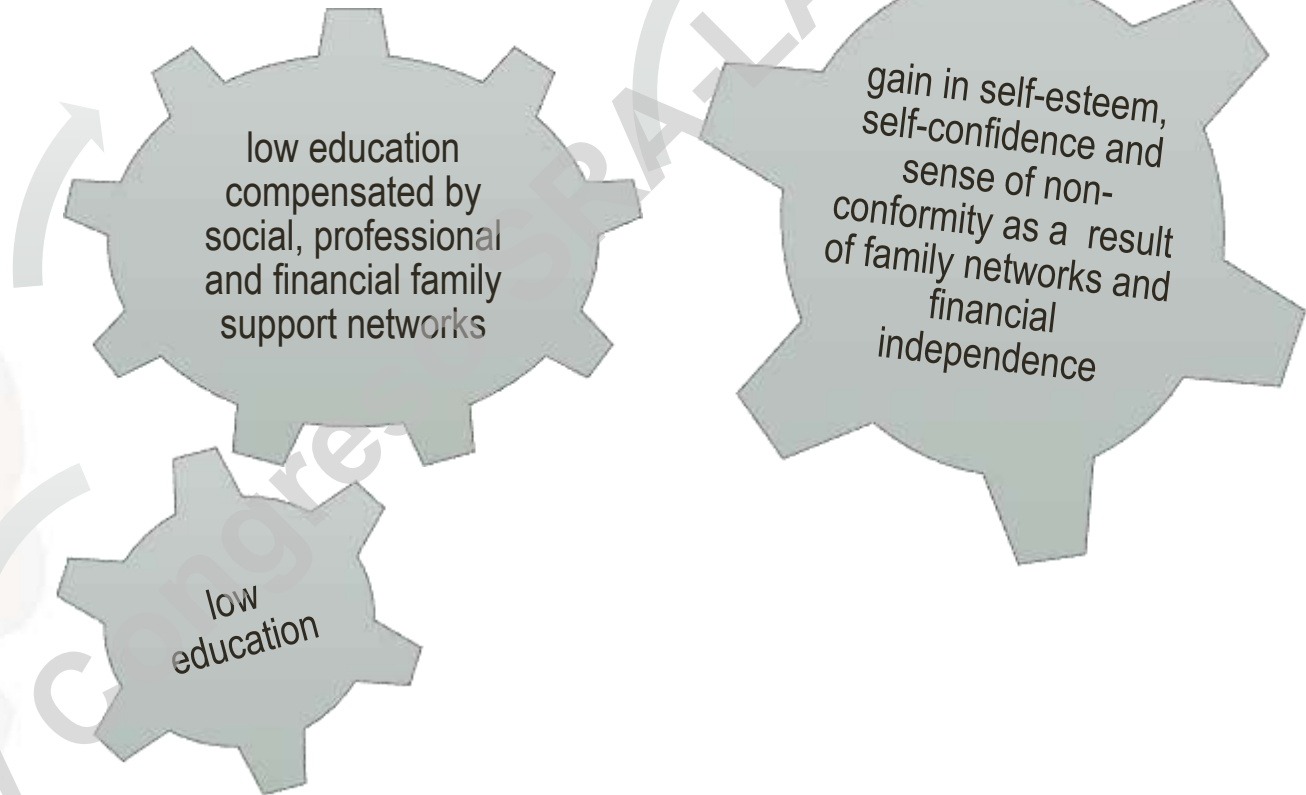




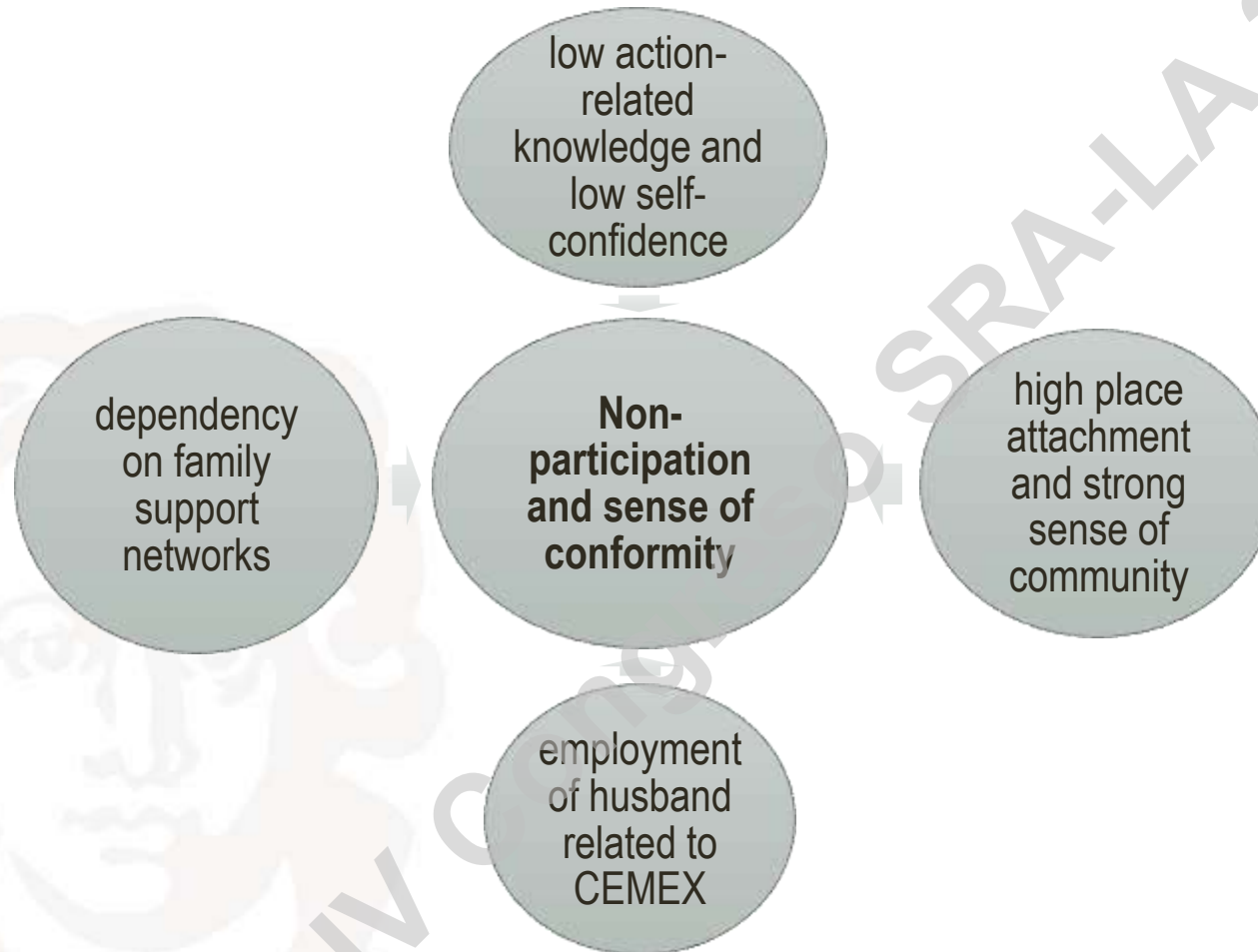
RESPONDENT 2: "Yes, we started involving the family, more friends to be able to do more."

RESPONDENT 2: "I was delegate in 2010, and when I was delegate I invited CEMEX to a meeting here in the town to explain to us what they were incinerating, what was going on."

Resource gain: co-founder of CUMA



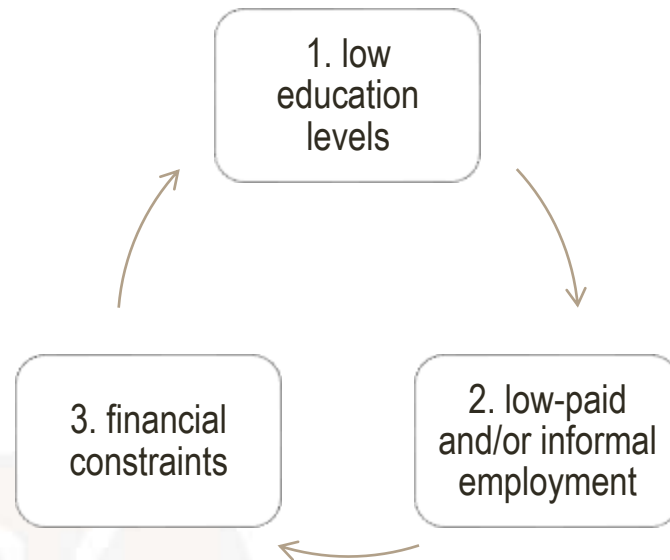
Resource protection against future resource loss: non-active respondents (wives of CEMEX workers)



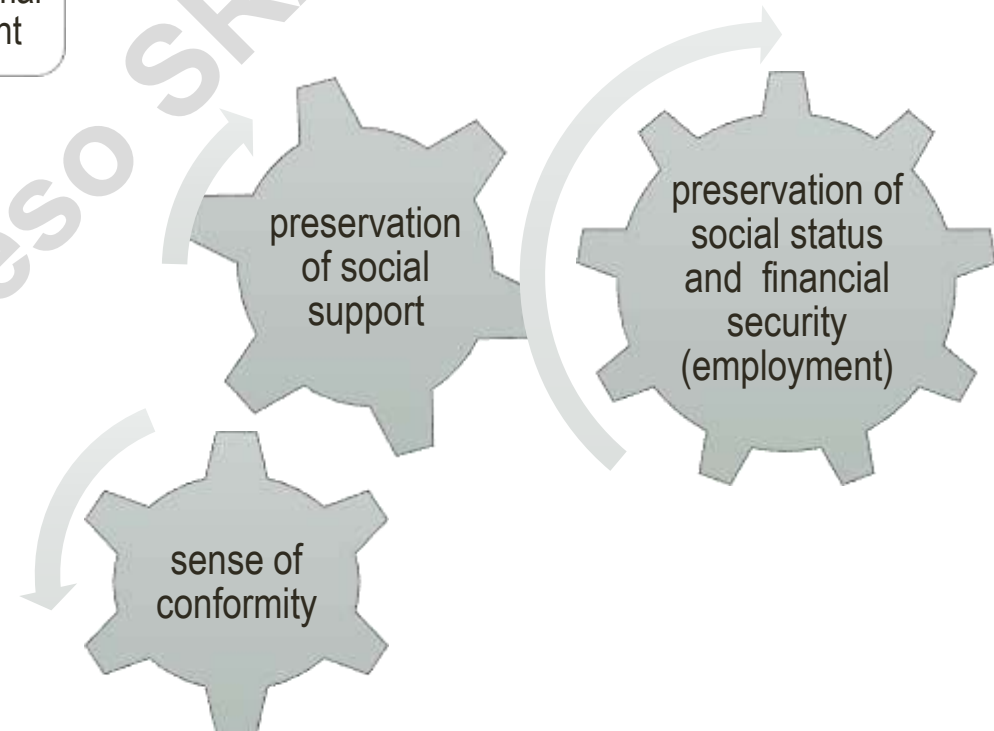
RESPONDENT 33: "I don't like doing these kinds of things. [...] "You do good but you get a bad reputation." [...] Yes, these people did invite me; they said: "Today we have an appointment with the governor." "No, please go yourselves. I dedicate myself to my children, to my house, and that's it."
(Wife of CEMEX worker)



Resource protection against future resource loss: non-active respondents (wives of CEMEX workers)



RESPONDENT 29: "They are afraid to lose their jobs. [...] Most of them have their husbands, sons, or brothers working there. [...] There are no jobs. That's why we say: "If we join, they will dismiss my husband or my brother or my son." And possibly this is what stops them from participating."



- Pluralistic understanding of **environmental justice**: interactions of distribution, participation, recognition, and individual capabilities;
- Deprived neighbourhoods are not entirely deprived of **agency for change**;
- Community participation against toxic hazards is driven by concerns, attitudes, social pressure, and **individual capabilities**;
- Individual capabilities and people's sense of **self-efficacy** are dynamic and must be understood over time: **biographical capability approach**
- Looking at **resource gains and losses** allows a dynamic understanding of drivers of self-efficacy and participation behaviour : e.g. place-attachment, family networks, financial independence, education etc.
- Past resources losses have a bigger impact than resource gains. With regard to the future, people strive for a **preservation of resources**.

**Thank you for your
attention!**

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