



UNIVERSIDAD NACIONAL DE CÓRDOBA
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Cleaner Production (CP) & Conflict Resolution: A way out of Social Exclusion



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COLOMBIA'S WATER CHALLENGE

- IWM not a common practice
- 95% CARS' budgets on pollution are on conventional wastewater treatment
- Water pollution 1% GDP
- By 2050, 70% population will face severe water shortages

An excluded group: MSEs

MSEs (1-49 employees)

•In developing countries

- Engine of the opportunities for development (UNIDO, 2005)
- In Colombia despite 99,4 % of enterprises- interests put aside – NO NEGOTIATION POWER
- Difficulty climbing in the social ladder
- Vulnerable (disadvantaged)

•In the water domain POLLUTERS from PRIVATE SECTOR

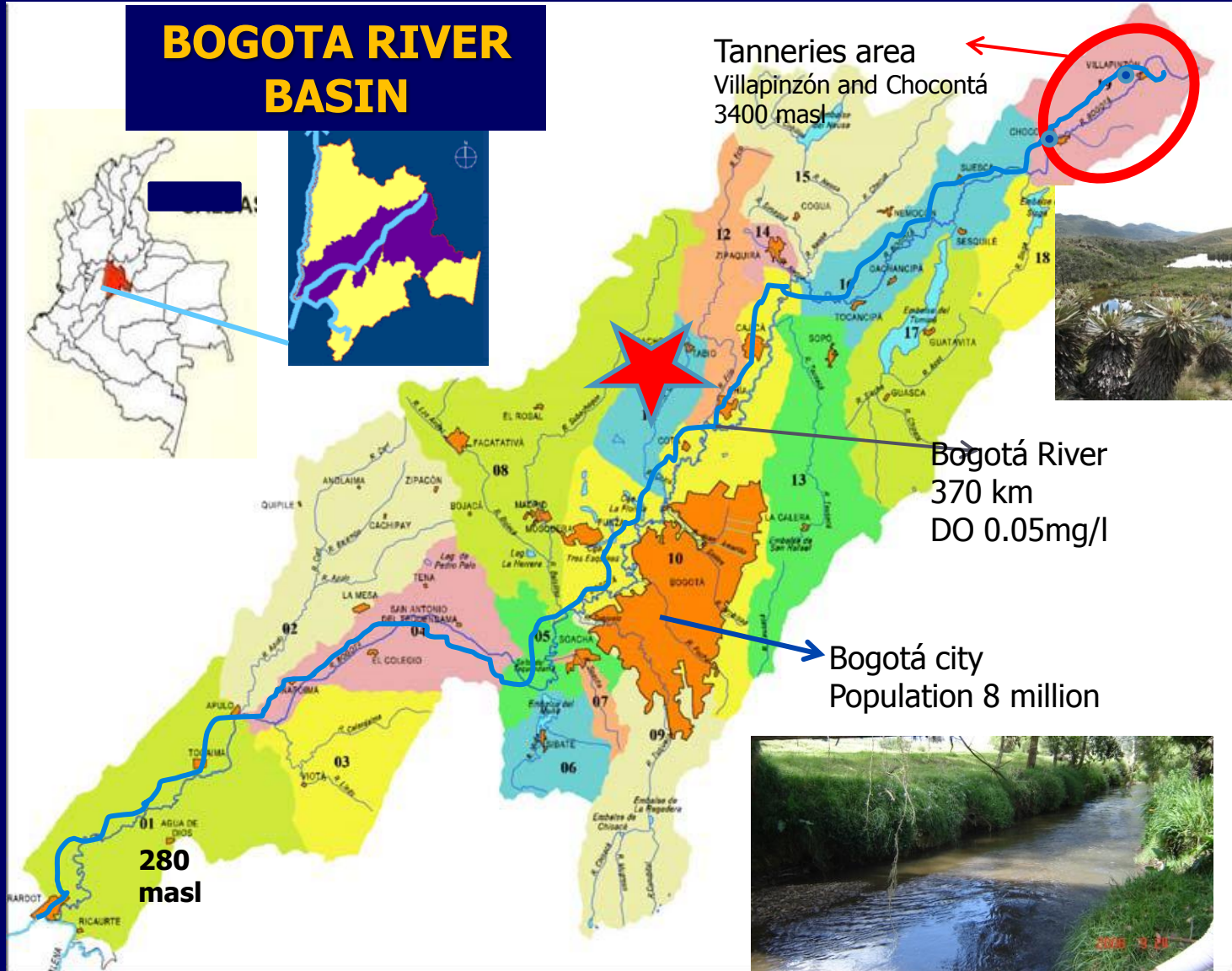
- Collective impact on the water bodies is substantial- 70% industrial pollution (Frondel *et al.*, 2005)
- Informal sector: Policy instruments bypass MSEs
- Often clear what but not how
- Stakeholder participation ineffective LEGAL ACTIONS!!!
- Mainly end-of-pipe approach

As the MSEs' viability is threatened....MSEs are in frequent conflicts with authorities



3700 Tons of H
7200Tons of fle
per year
120 tanneries

BOGOTA RIVER BASIN







OPEN LAND

The tanners were
believed to have lost
their opportunities to
treat their discharges
and were the ones to
be blamed for this.



**TO SEE THEM NOT AS BARRIERS
BUT AS OPPORTUNITIES:
To boost
their negotiation power**



‘Queremos que nos oigan’

Piden poner el dedo en la yaga de sus necesidades financieras y de educación. Claman por facilidades de crédito y capacitación tecnológica.



ZORAIDA PABÓN, presidenta de la Confederación Nacional de Empresarios de la Microempresa.

5.000 microempresarios de todo el país. Es algo así como la Andi de los pobres. Una entidad que ya tiene mayoría de edad (18 años de fundada) y presencia en 21 departamen-

ción para controlar el desempleo.

Este gremio nació con el fin de lograr que todas las organizaciones nacionales encuentren un canal de diálogo

Pabón no tiene pelos en la lengua para defender su sector. Se queja de los requisitos para que le avalen préstamos a los microempresarios y de frente critica los programas de capacitación de fundaciones como la del grupo Santodomingo, donde, según ella, le cobran a cada participante hasta 160.000 pesos por un seminario indispensable para acceder al crédito.

Los miniempresarios sostienen que están cansados de tantos cursos de contabilidad cuando lo que necesitan son, por ejemplo, nuevas técnicas de diseño y modelos para las confecciones, el sector que sigue siendo el rey entre los microempresarios junto con el maderero.

Señalan además que para avalar los préstamos está el

Inminente cierre de mataderos y curtiembre

“Se nos agotó la paciencia”, dijo la Directora de la CAR y recordó que ya son 20 años forcejeando con las empresas para que cumplan. Decisión tiene apoyo de Presidencia y Minambiente.

REDACCIÓN NACIONAL

Para cumplir las normas y seguir contaminando Bogotá la Car

frente de la CAR ha sostenido cuatro reuniones con los voceros de esas empresas, pero no han hecho nada para controlar los desechos químicos y orgánicos y los siguen arrojando al río.

Por ejemplo, explicó que la sangre de los animales sacrificados se bota directamente pese a que tiene una capa de proteína que al solidificarse tapona los alcantarillados en tanto que las heces presentes en los intestinos de una sola res (que equivalen a las que producen 300 personas) van al río.

Las curtiembres, por ejemplo, generan unos 10 empleos, de los que de sustento igual número de familias con un promedio de 6 integrantes. Respecto a los mataderos, las cifras son tan precisas, pues de su capacidad y del número de animales que sacrifican.

En todo caso, por lo que se requieren en promedio 17 trabajadores. Por ejemplo, en el de Zoraida Pabón se sacrifican de manera promedio 17 animales (que equivalen a las que producen 300 personas).





AIM AND OBJECTIVES

Aim

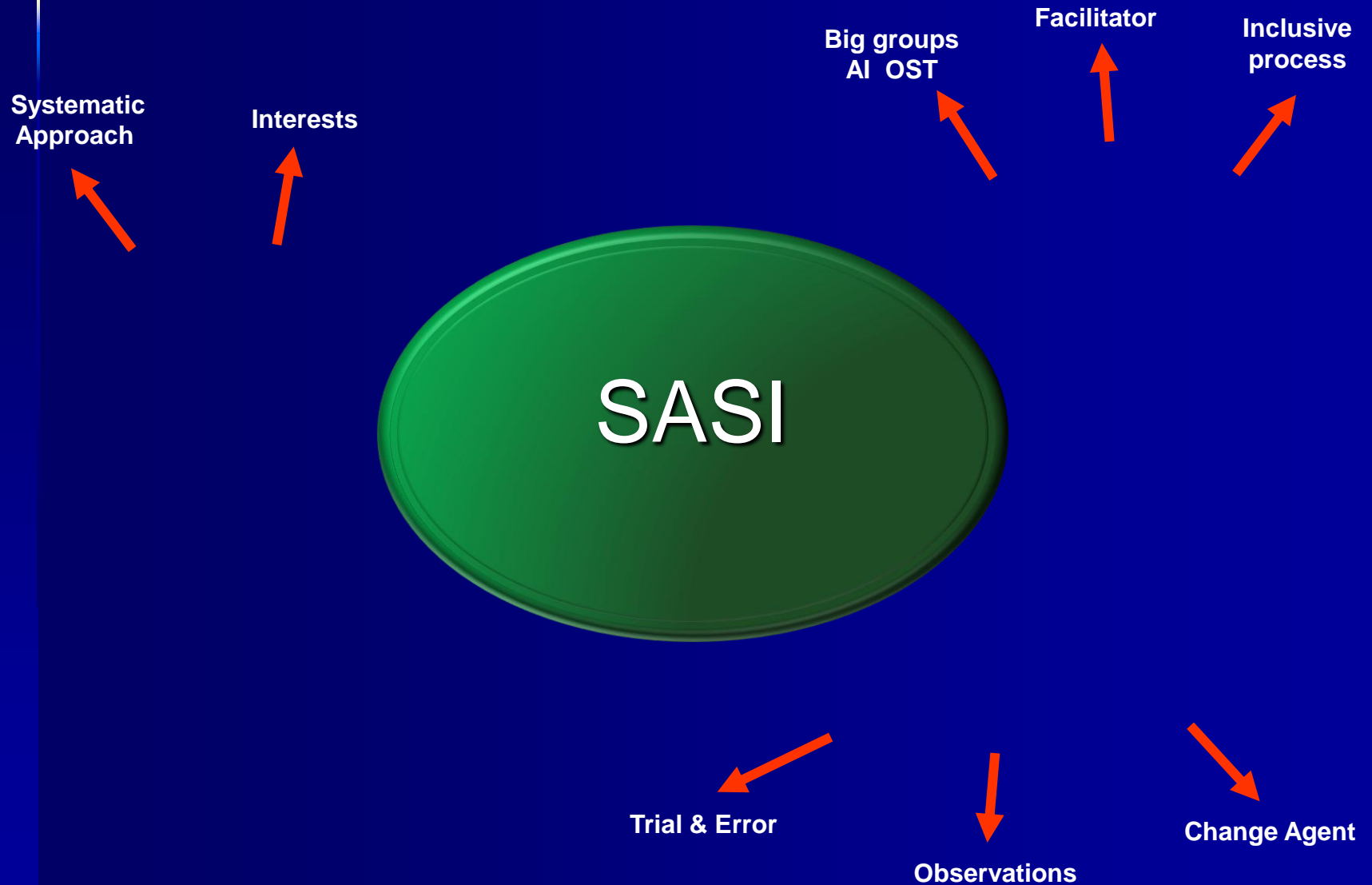
to contribute to integrated river water management and to transition towards sustainability of MSEs

Objectives

- to implement a system based on negotiation, conflict resolution and managed learning so as to bring the MSE community on speaking terms with environmental authorities,
- to implement cleaner production in the MSEs so as to reduce the environmental impacts and improve the economic viability of these industries.

- **Empowerment** :Internal strengthening and building strategic alliances supporting 5 main issues set by the tanners on future scenarios
 1. Strengthening the association
 2. Legalizing tanners
 3. Working inter-related land issues
 4. Implementing CP project
 5. Searching competitiveness

THEORY & METHODS



- 1.Introduction
- 2.Key concept
- 3.T, M & A
4. Results
- 5.Concluding Remarks

Systematic Approach for Social Inclusion (SASI)

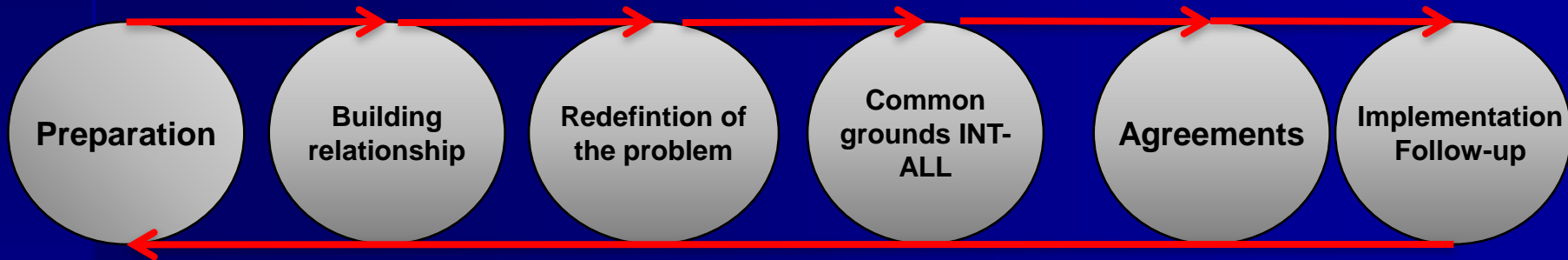
Initial
diagnosis

Psychological
safety

Consensus
Visioning
Strategy

Negotiations

Monitoring



Stakeholder
analysis
Indicators
BATNA
Initial definition
Problem
Nature
relationships
Possible allies

Qualitative Assessment

#	Indicators
1	Access to participation
2	Nature of relationships
3	Consensus on perceived causes of problem

- 1.Introduction
- 2.Key concept
- 3.T, M & A
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- 5.Concluding Remarks

RESULTS

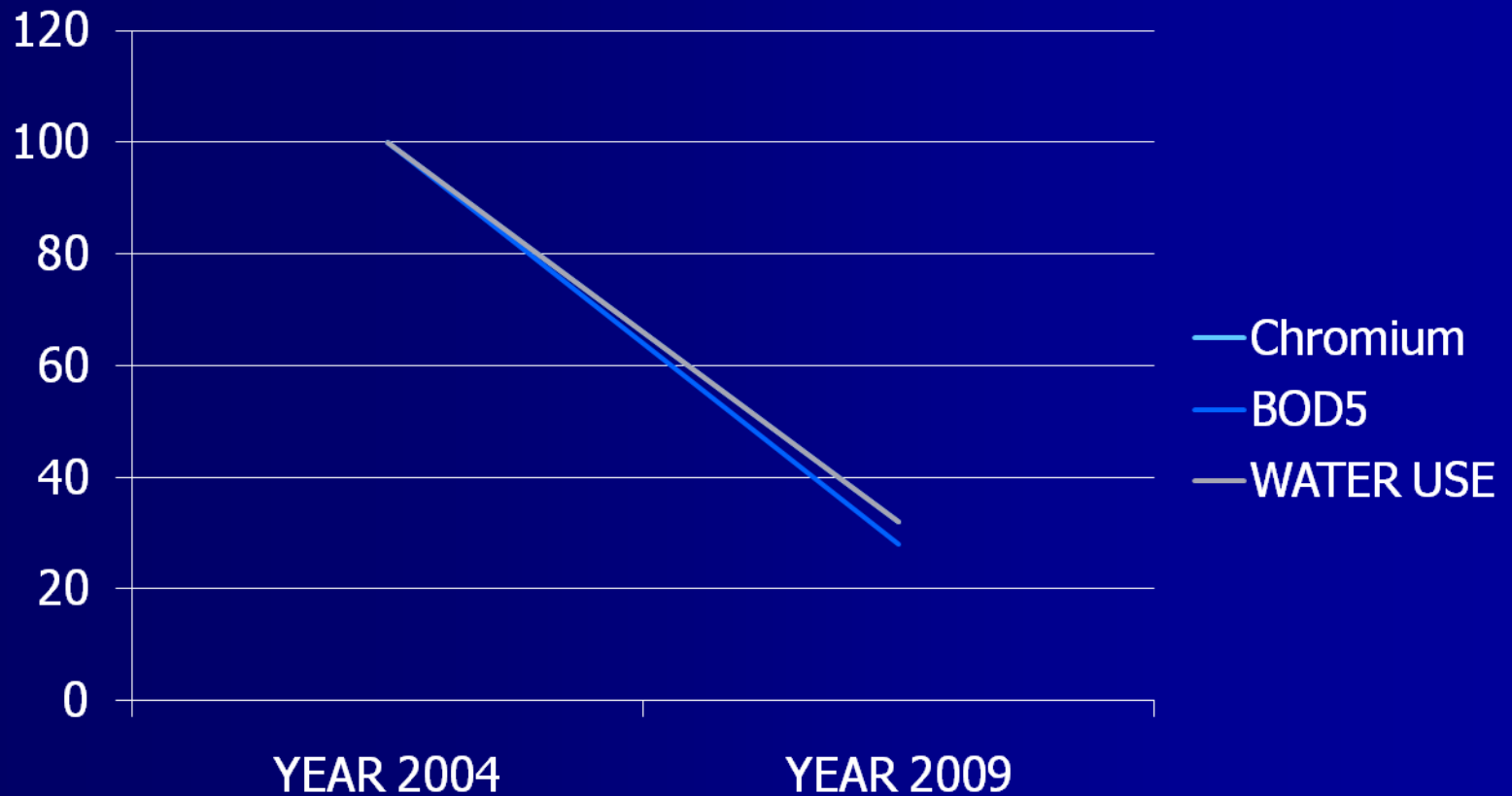
#	Aiming at	Activities	Results
1	Strengthening the association (Improving negotiating power-Improving outcomes-Behavioural change)	Initial 3 steps Broadcasting on Media Building powerful alliances Trust building Reliable information	Positive leader Support to CP- Consensus on PD Negative leaders fade away Better public image
2	Legalizing tanners and recognition from Authority	Influencing the Court Order Getting approval from CAR (Support from Senator; CCB) Legal appeal to switch fines for work Motivating Ministry towards the a pproach on CR Lawyers	CP is mandadatory From 120, 86 tanneries legalized (water permits) Appeal accepted at the regional court (New path is open) New policy on CR to be worked
3	Working inter-related land issues	Bringing the debate to the Governor- Office of the Presidency (Senator, Ministry) and Public Prosecutor- Mayor	Properties rights recognized River bank is defined Industrial area defined

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RESULTS

#	Aiming at	Activities	Results
4	Implementing CP-recognition from CAR	Building support from Academia Defining sound technical solutions on discharges and solid waste	SWITCH-UNAL NGO AVINA MEDIA CAR co-finances Tanners knowledgeable 12 pilot tanneries: 30 following trend to reduce and prevent, 50 coming once spatial planning cleared out Effective actions on 62% of tanneries Demos on CP / composting Monitoring tool Proposal to new CP policy
5	Competitiveness	Workshops for quality improvements Integration into the leather chain Building access to credits	Support COLCIENCIAS-UNAL CEINNOVA Agreement to be signed between actors on the leather chain Tanners learning to sell products through associative strategies

Pollution & water use reductions

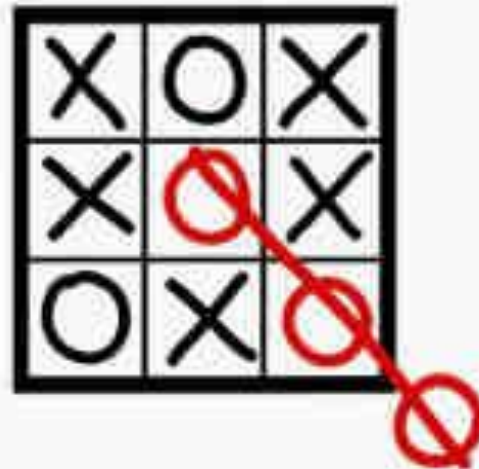


CONCLUDING REMARKS

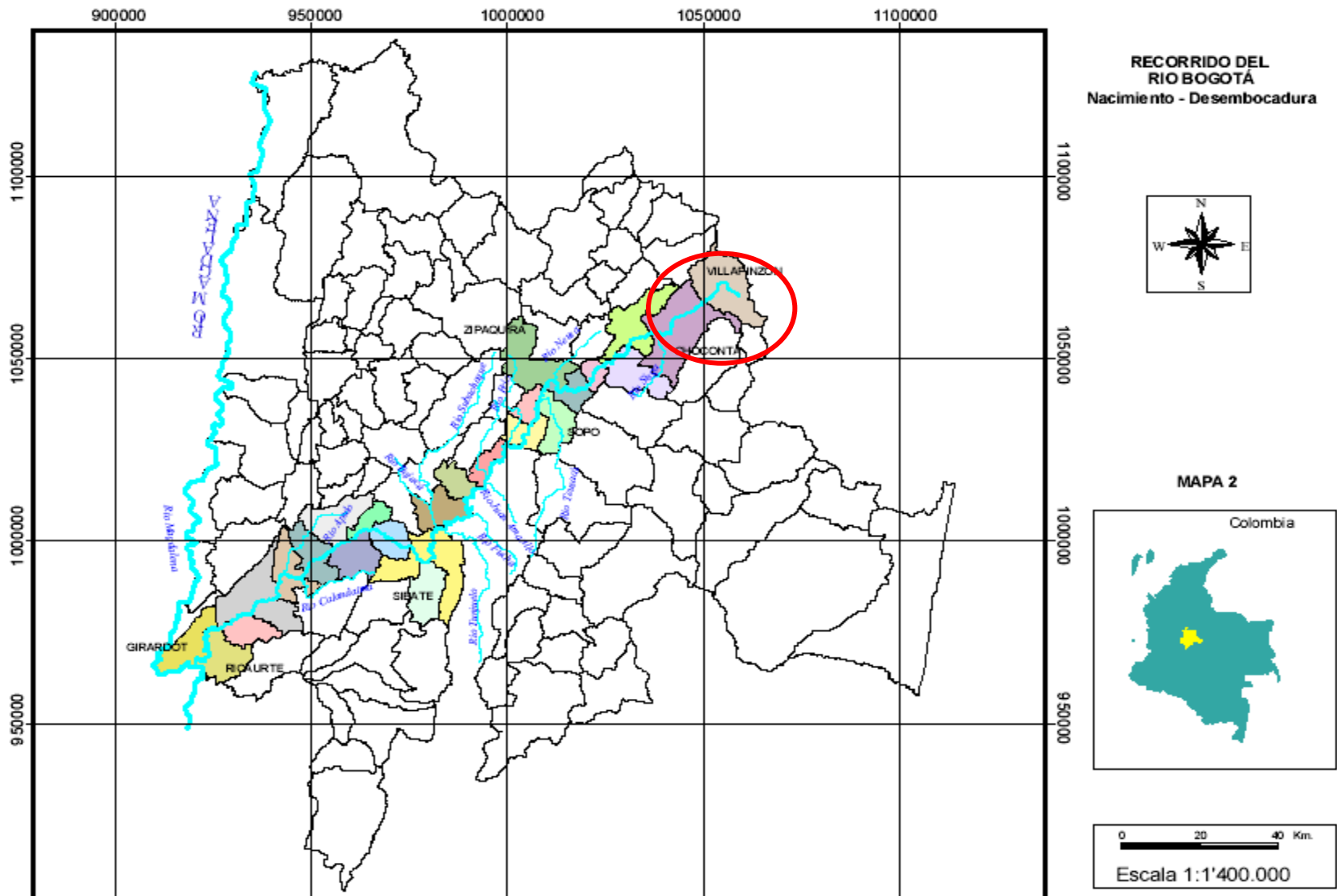
1. MSEs –knowledgeable- eager to participate if identity respected & process transparent
2. Helping integration into the legal system : an everybody's responsibility to sustainable tanneries- Power game. Social problems first.
3. The Change Agent: focus on a holistic approach and resist the normal tendency to discard topics/ INDEPENDENCY
4. Engaging the political actors should not be seen as an obstacle
5. A multidisciplinary support from academia is essential (Conflict, CP, Associativity)

**Conflict =
Opportunity !!!!!**

**THINK
OUTSIDE
THE BOX**



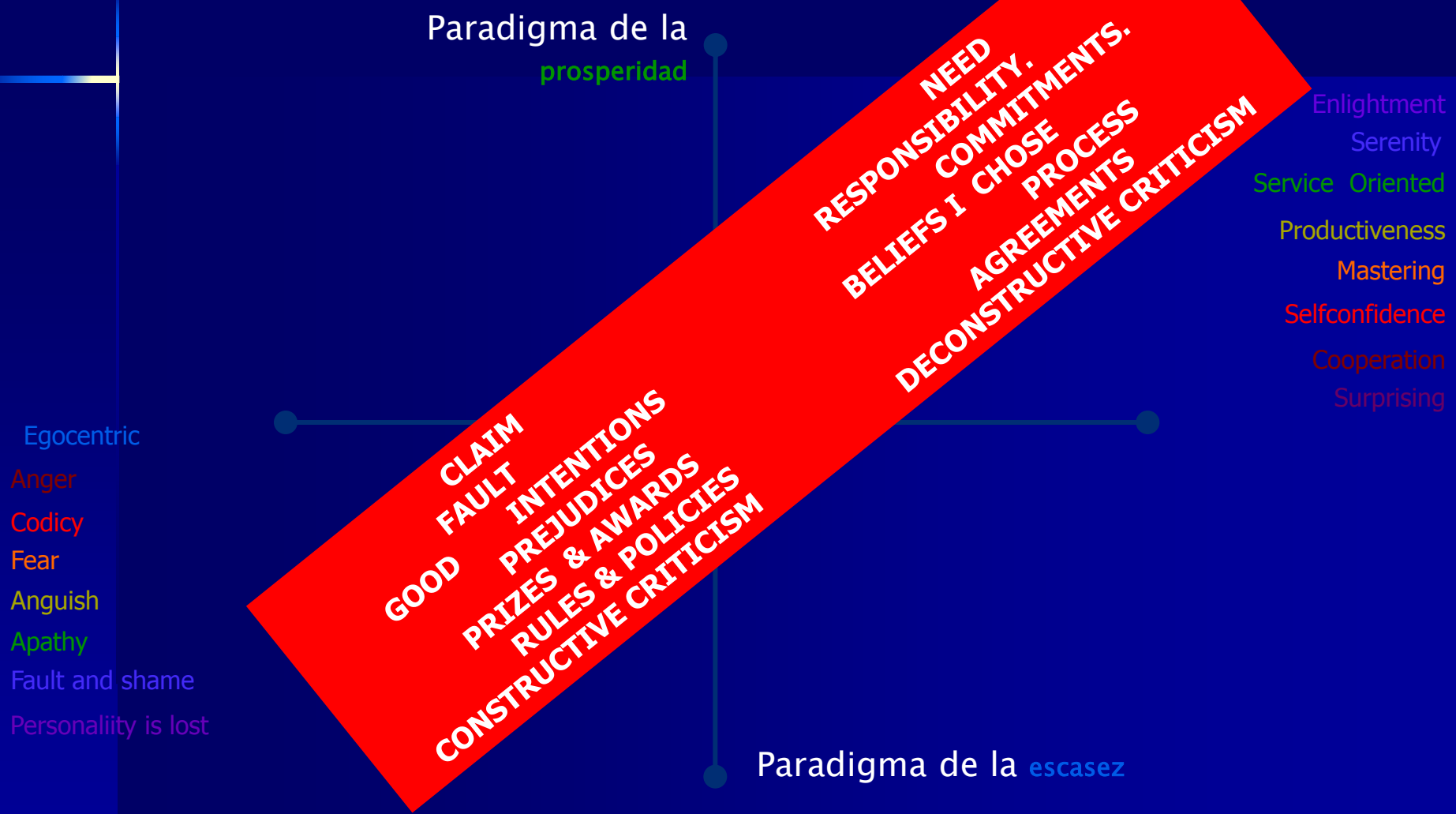
LOCATION



67 potential end-of-pipe solutions
Law-suits against – sole strategy
4000 jobs

- Social exclusion
- Clandestine industrial activity
- Forced closures

Path towards spiritual intelligence



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PRINCIPLES

Principle	Theory
(1) People support initiatives that they help create	Conflict resolution (Holman, 2004)
(2) On big groups as targets common grounds/respecting individuals	Conflict resolution (Holman, 2004)
(3) Complex negotiations interests / not on positions	Negotiation (Raiffa, 2002; Fisher, 1991)
(4) Know a system - change it	Managed learning (action research) (Lewin, 1946)
(5) Best learning process: trial and error	Managed learning (action research) (Schein, 1997)