# Social Science Contributions to Disaster Risk Management in Algeria

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- 1<sup>st</sup> National Conference on Disaster Risk Management
- 23 October 2018, Algiers



@DRRDynamics



# **KEEP CALM** AND REPEAT AFTER ME... DISASTERS **ARE NOT** NATURAL

# $R = [(H \times V/C) - M]$

- R = Risk
- H = Hazard
- V = Vulnerability (a function of susceptibility to loss and exposure)
- C = Capacity to resist, cope with and recovery from the hazard impacts
- M = Mitigation and social protection

Risk -- perception, decision making Hazard -- hazard ranking, daily risk Vulnerability -- groups at risk Capacity – knowledge & participation Mitigation – governance

#### Social Science Contributions to Understanding Risk in Algeria

- Psychology
- Sociology
- Economics
- Human geography
- Anthropology
- Public administration
- Development studies



#### SOCIAL SCIENCE

# Risk – perception, decision-making Psychology & Sociology Anthropology

- Hazard -- ranking, daily risks
- Vulnerability -- groups at risk
- Economics
- Human geography
- Development studies
- Capacity knowledge & participation
- Mitigation governance Public administration

Risk -- perception, decision making Hazard -- hazard ranking, daily risk Vulnerability -- groups at risk Capacity – knowledge & participation Mitigation – governance

#### <u>Common Vulnerable Groups</u>

- § women generally, pregnant women
- § children generally, new born infants
- § elderly people, especially isolated widows and widowers
- § low income people and households with little or no savings
- § self-employed with no insurance to cover their equipment and materials
- § small business owners and employees
- § recent migrants not familiar with or eligible for government and other support and social protection









#### Livestock & Shepherds



### Co-production of Knowledge & Risk Communication



#### **Citizen Science**

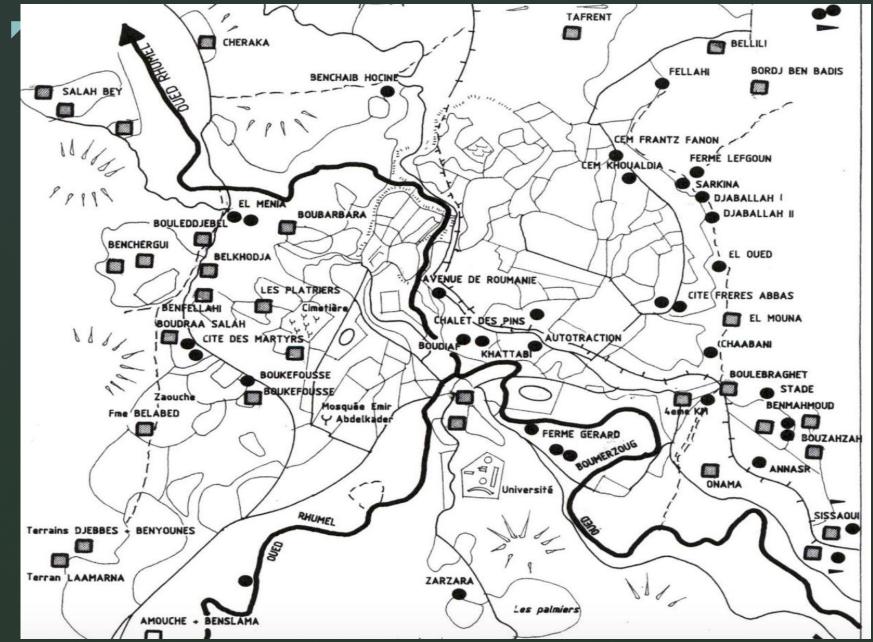
...and this thing, if it does indeed exist, offers enlightenment, hope, and the potential to unlock the mysteries of the universe to all people? Sounds very powerful and maybe too dangerous to be trusted to the masses. What did you call it again?



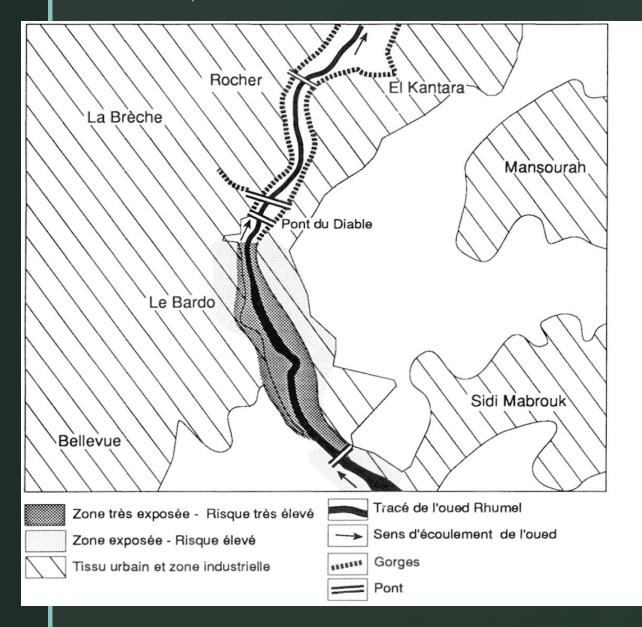
#### 20 September 2018 Flooding in near Constantine



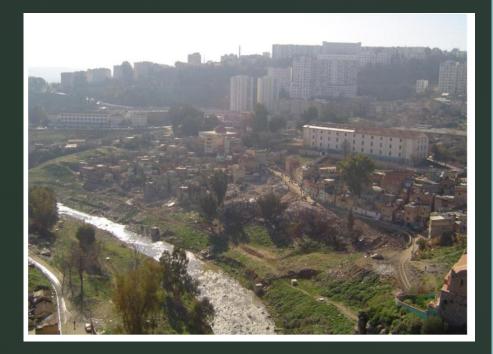
#### 'Bidonvillisation" in Constantine



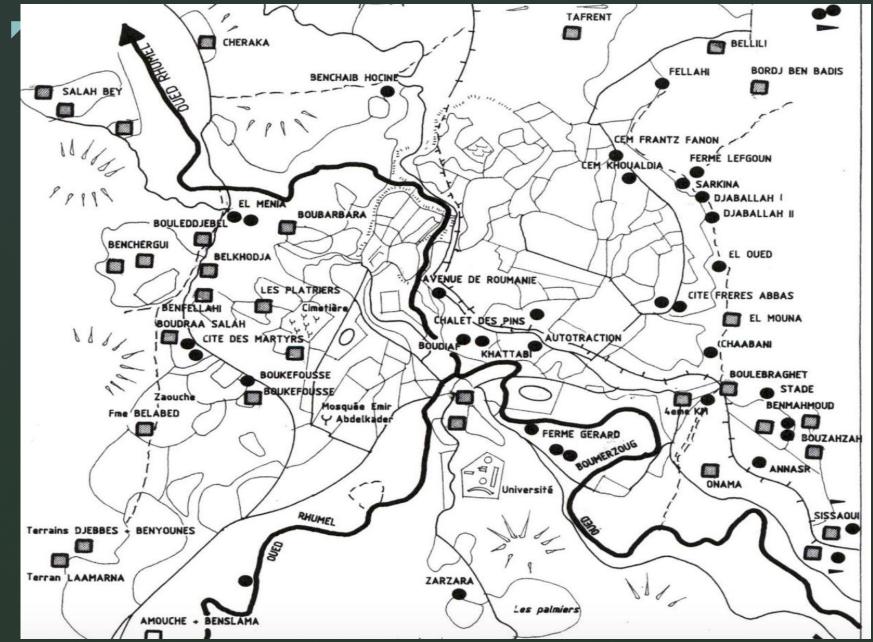
# Oued Rumel Flood Risk Map



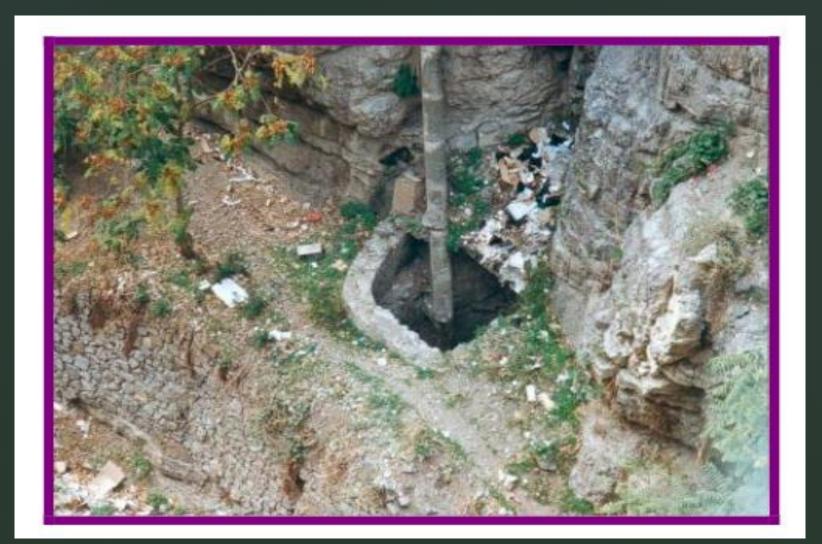
#### A View of Le Bardo



#### 'Bidonvillisation" in Constantine



# Improper Waste Drain into Oued Rumel (Adila, 2018)



# Social Science would ask Residents...

- Why do you live where you do?
- What alternatives are there?
  - Did you not qualify for re-housing?
  - Are you still waiting?
  - Re-housing not acceptable?
  - Why not?
- Benefits the present site?
  - Cost?
  - Proximity of employment?
  - Proximity of services?
  - Family and social networks



# Seven Vulnerability Factors in Algeria (Benouar, 2015)

- (1) Insufficient resources for disaster risk reduction
- (2) Unplanned urbanization
- (3) Settlements within high risk zones
- (4) Lack of compliance to building codes
- (5) Deficient urban management practices
- (6) Unpreparedness to confront disasters
- (7) Poor quality of workmanship (lack of training)

## THANK YOU!

