





"Qualitative and quantitative methodologies for the assessment of rangeland governance" INRAT, 3<sup>rd</sup> to 5<sup>th</sup> of December 2019.

# Application of the BBN approach : Enhancing rangeland governance under constraining land tenure systems: case of South Tunisia

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## **Research Questions**



How can we provide a quantitative assessment of rangeland governance?

How can we assess the effect of different (institutional, environmental, and socioeconomic) factors on governance ?

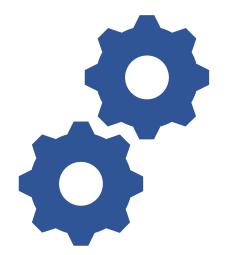
# Objectives



To quantitatively assess the causality pathway of having "good rangeland governance" under different Land tenure systems

Attributing importance weights to the determinant factors of "rangeland governance"

# Methodological approach



Establish a BBN structure through consultation with local stakeholders (including PF and SF) : 2 days workshop for local consultations

Provide a list of good governance indicators (to be able to discretize governance) : Participants developed together a list of governance indicators

Primary data collection based on the obtained network structure

Estimation of conditional probabilities and sensitivity of the outcome : BBN results

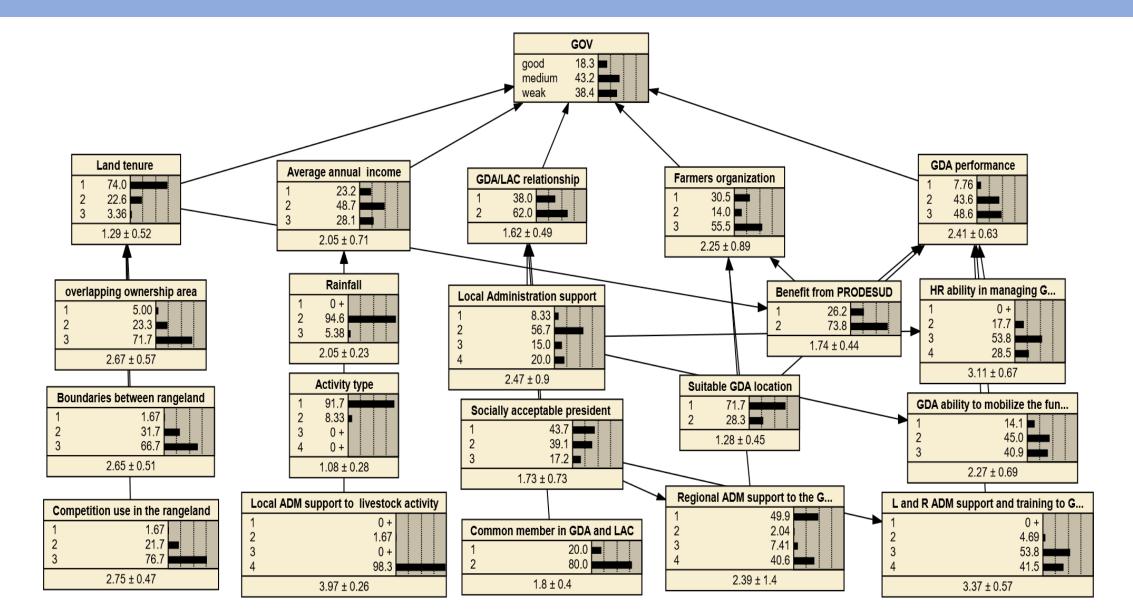
# Results : BBN Structure & Governance Drivers

In Tataouine :



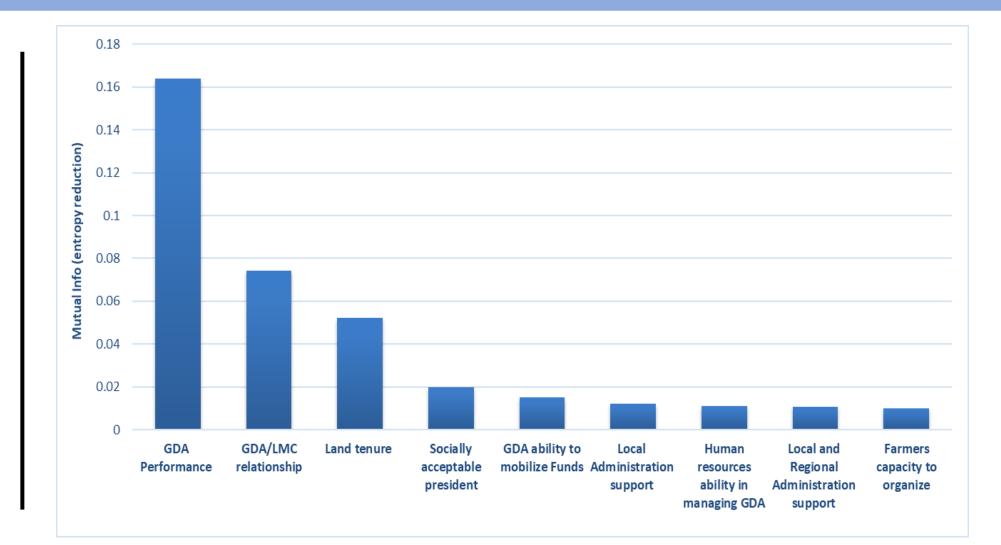
- The probability of having a "good rangeland governance" was only 18,3%, while 43% for having medium rangeland governance and 38,4% for having weak governance.
- The land tenure system with the highest probability in the area was the "Private + Collective ownership": about 74%
- The probability to be a beneficiary from the IFAD Development project PRODESUD was only 26%
- The probability of falling into a medium or weakly performing GDA is about 90%.

#### Results : BBN Structure & Governance Drivers



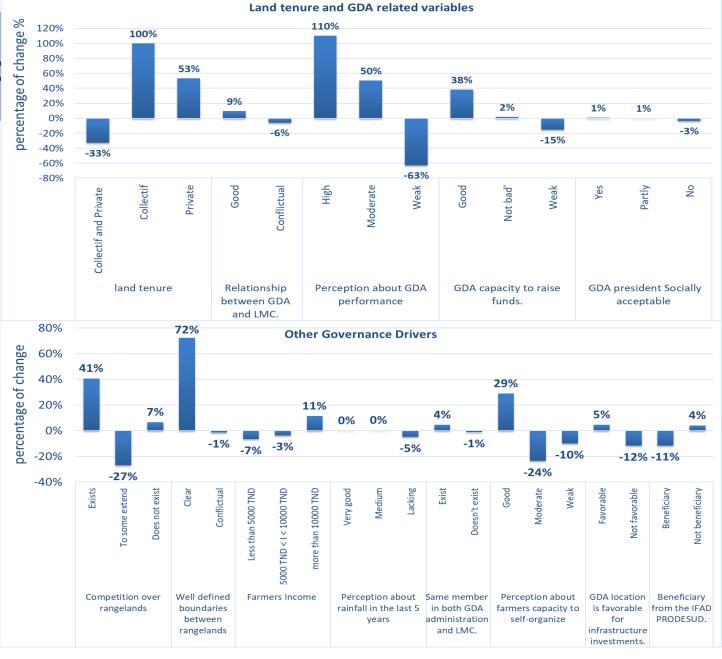
## Results : Sensitivity analysis





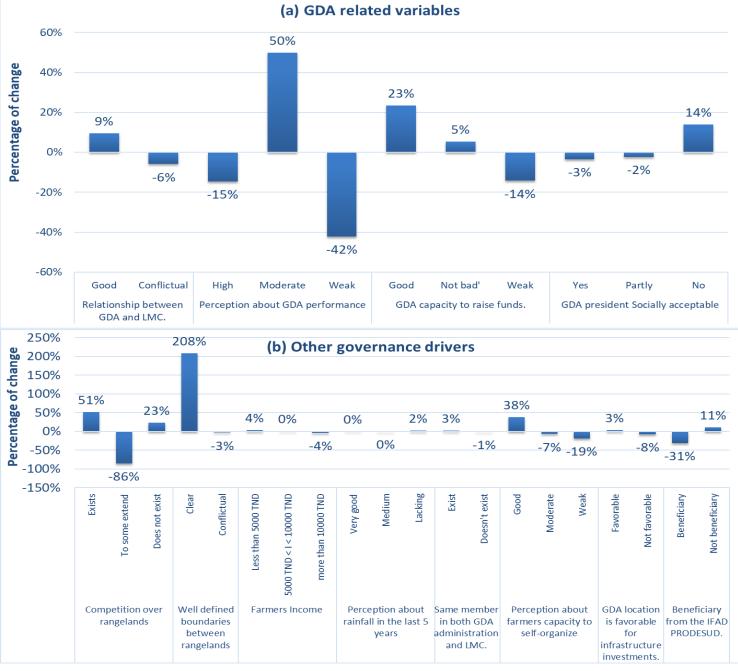
# **Results : Scenaric**



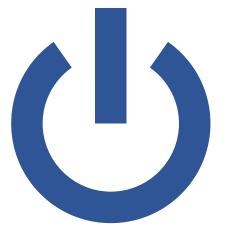


## Results : Scenarios





## Conclusions



Farmers perception about their rangeland governance is highly sensitive to GDA performances, land tenure systems, and relationship between collective landowners and GDA

We have better rangeland governance under private and collective rangelands compared to cases where private ownership exists and is embedded into larger collective ownership systems.

Under exclusive private and collective land tenure systems, it is suggested that there is a need to enhance income generating activities by creating further (competitive) usages of rangeland in addition to grazing.

It is also suggested that clear boundaries will also contribute to further enhance rangeland governance under private land tenure systems.

