Harnessing Indigenous Forage Legume Species to Bridge Feeding Gaps and Mitigate Climate Change Impacts

- **Sulla** (*Hedysarum* spp.) is an exceptional legume known for its high productivity, deep root system, and palatability, making it an excellent choice for semi-arid agricultural systems.
- Various species of sulla exhibit diverse traits related to drought tolerance, allowing for customized selection based on specific needs and environmental conditions.
- Enhances soil fertility and aids in erosion control.
- Offers excellent forage with high protein content.
- Highly palatable and nutritious, making it suitable for livestock methane reduction and increased productivity.

**Outcomes**

- Identification of indigenous forage species suitable for drought-prone areas.
- Livelihoods improved with enhanced livestock performance and lower feeding expenses.
- Ecosystem services enhanced through increased soil organic matter, and mitigated water and soil erosion.
- Increased farmers’ adoption evidenced by high demand for protein-rich feed

**Next steps**

- Improve and enhance the quality and production of Sulla through a targeted breeding program.
- Investigating the impact of environmental factors on the quality of forage species.
- Assessing the influence of maturity stage on the quality of indigenous forage species.
- Scaling up successful technologies to similar agro-ecological environments.
- Strengthening the production of indigenous forage species seed systems.

**Partners**

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**Promote local native forage legume species for resilience in specific environments, ensuring agricultural sustainability.**

**Select location-specific sulla species for optimized performance and productivity.**

**Engage farmers through participatory approaches, empowering decision-making, capacity building, and access to high-quality nulla seeds, raising awareness of the benefits of valuable forage resources.**

**The challenge**

- Despite Tunisia’s genetic biodiversity, forage legume utilization remains limited.
- The rising demand for animal protein exposes the scarcity of grain and forage legumes in agro-ecosystems.
- Using well-adapted, drought-tolerant, and nutritious fodder species is vital to mitigate climate change and reduce the impact of pasture degradation on animals.

**Our innovative approach**

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