



SUSTAINABLE STRATEGIES FOR THE CONSERVATION AND GENETIC IMPROVEMENT OF THE TRANSYLVANIAN NAKED NECK CHICKEN BREED

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Abstract: The Transylvanian Naked Neck chicken breed represents a valuable component of Romania's animal genetic heritage. Due to its declining population and risk of extinction, sustainable conservation and genetic improvement strategies are essential for preserving biodiversity, enhancing climate resilience, and maintaining the cultural and agricultural heritage of traditional Romanian poultry farming.

• Introduction

- Indigenous Romanian poultry breed with unique featherless neck trait;
- Originated in Transylvania through traditional selection;
- Valuable for adaptability and disease resistance;
- Currently endangered due to industrial poultry expansion;
- Conservation is important for biodiversity and food security.

• Current status and threats to the breed

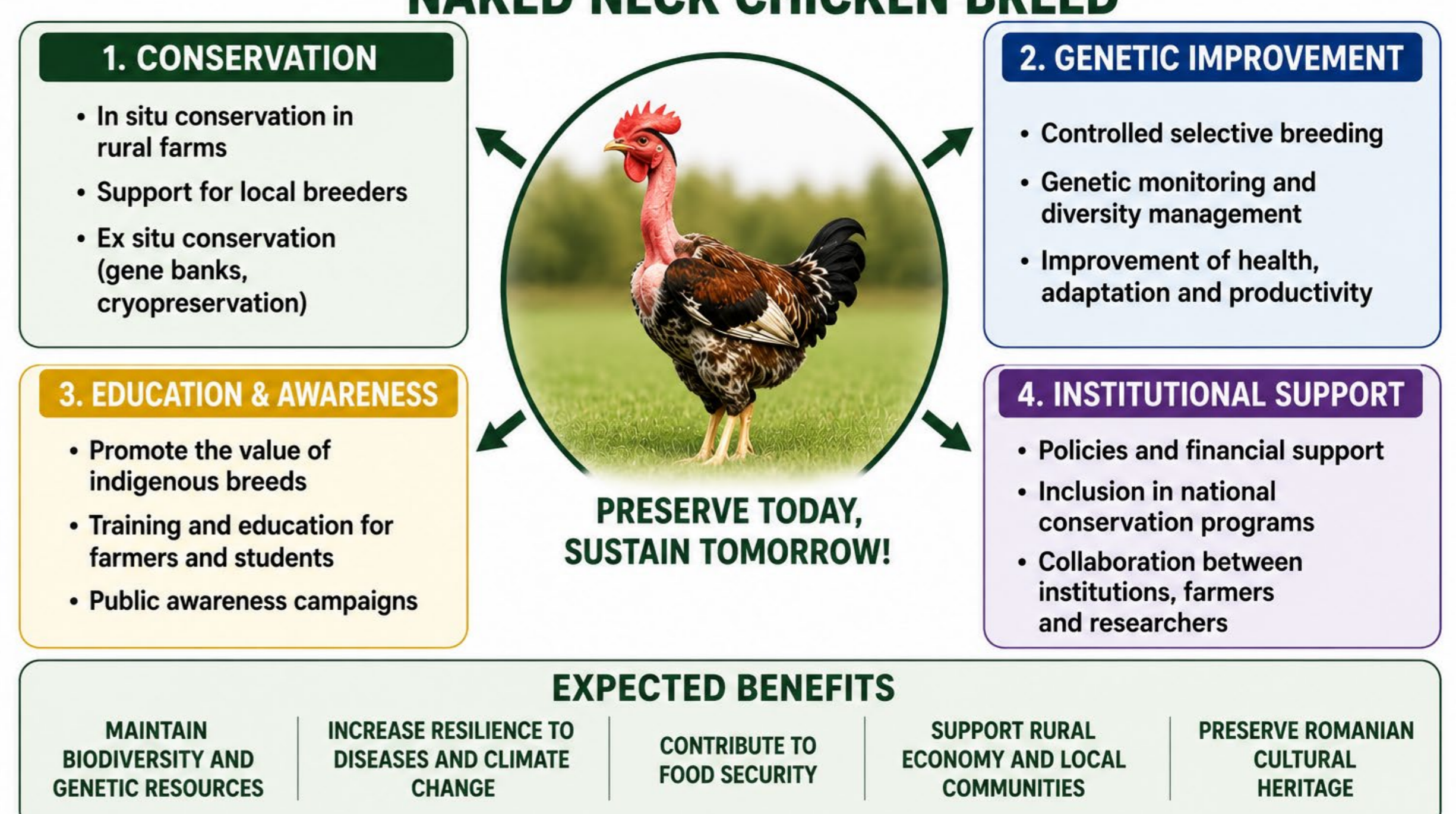
- In situ conservation:
 - preservation within traditional rural farming systems;
 - Support for local breeders and family farms
 - Development of breeder associations and conservation networks.
- Ex situ conservation:
 - Establishment of gene banks and cryopreservation programs;
 - Maintenance of nucleus populations in research institutions and universities.
- Educational and institutional measures:
 - Public awareness campaigns regarding indigenous breeds;
 - Inclusion of local breeds in agricultural education programs;
 - Governmental support through subsidies and conservation policies.

• Genetic improvement strategies

Sustainable genetic improvement should focus on preserving breed authenticity while enhancing productive and adaptive traits:

- Controlled selective breeding programs;
- Genetic monitoring to avoid inbreeding;
- Selection for disease resistance and climate adaptability.

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• Genetic improvement strategies

- Identification of pure-breed populations;
- Genetic evaluation and monitoring;
- In situ conservation;
- Ex situ gene preservation;
- Selective breeding programs;
- Institutional and financial support;
- Long-term sustainable preservation

• Conclusions

- The Transylvanian Naked Neck is a valuable indigenous genetic resource;
- The breed is currently endangered and requires urgent conservation measures;
- Sustainable breeding programs can preserve genetic diversity;
- Institutional support and farmer involvement are essential;
- Conservation contributes to biodiversity and sustainable agriculture.