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# The Need for an IPR Regime in the Animal Husbandry Sector

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The animal husbandry sector plays a pivotal role in food security, rural employment, agricultural GDP contribution and preservation of indigenous livestock resources. However, innovations in livestock biotechnology, breed improvement and traditional livestock knowledge require protection from misuse and misappropriation. A robust Intellectual Property Rights (IPR) regime ensures fair benefit-sharing, commercialization potential and sustainable utilization of Animal Genetic Resources (AnGR). This article highlights the significance of IPR in the livestock sector, current initiatives in India and globally, challenges encountered and future prospects for an equitable innovation ecosystem.
Key Words: Animal Husbandry, intellectual Property Rights, livestock

## Introduction

IPR frameworks have become crucial globally to protect innovations and encourage technological development in multiple fields, including agriculture and animal husbandry. India, possessing one of the largest livestock populations in the world with immense biodiversity, stands to benefit substantially by securing its unique genetic resources, technological developments and traditional knowledge systems under a structured IPR regime (Ramesha, 2011). Livestock production now operates in a knowledge-intensive technological environment involving biotechnology, disease diagnostics, advanced reproductive technologies and genetic conservation strategies. To sustain innovation and ensure socio-economic benefits to stakeholders such as scientists, breeders, pastoralists and farmers, IPR enforcement is imperative.

## Livestock Biodiversity and Need for Protection

India's indigenous breeds have evolved under challenging agro-climatic conditions and possess adaptive advantages such as heat tolerance, disease resistance, survival on poor quality feed and resilience to climate-induced stress (Ramesha, 2011). International reports warn that approximately one-third of livestock breeds worldwide are at risk of extinction, highlighting the urgency of conservation (Kohler-Rollefson, 2001). Pastoral communities have historically conserved these breeds without recognition or compensation; therefore, access-and-benefit sharing obligations under modern IPR treaties are vital for ensuring their contribution is rewarded and their biological resources are not exploited by commercial entities.

## Types of IPRs Applicable in Livestock Sector

A diverse set of IP tools safeguard innovations in animal husbandry:

| Type of IPR | Application in Livestock |
|---|---|
| **Patents** | Vaccines, diagnostics, gene sequences, biotech equipment |
| **Trademarks** | Branding of animal-based food products |
| **Geographical Indications (GI)** | Regional livestock breeds and products |
| **Copyrights** | Digital livestock tools, software, extension materials |
| **Sui generis rights** | Protection of biological resources and traditional knowledge |

## Traditional Knowledge (TK) and Indigenously Conserved Resources

Indigenous Technical Knowledge (ITK) remains a critical component of livestock primary healthcare, especially in rural areas where veterinary access is limited. TK systems offer cost-effective and sustainable therapeutic solutions for livestock diseases (Shubeena et al., 2022).
IPR enforcement are needed to:

- Prevent biopiracy of ethnic medicinal practices
- Encourage research-based validation
- Improve benefit-sharing and commercialization
- Protect community-owned knowledge under national frameworks (Chavhan et al., 2023).

## Global Legal Context

Globally, the TRIPS Agreement, Convention on Biological Diversity (CBD) and Nagoya Protocol mandate protection and regulated access to genetic resources. Breeding achievements such as new livestock strains are increasingly treated as patentable intellectual assets with transferability to heirs (Horislavska, 2022).
Countries such as the USA, China and the Philippines have strengthened IP management through Bayh–Dole-like reforms, facilitating commercialization of publicly funded research (Payumo et al., 2012).

## Conclusion

The livestock sector stands at a pivotal juncture where scientific progress must align with equitable legal frameworks. An effective IPR regime in animal husbandry:

- Protects genetic wealth and traditional knowledge
- Rewards innovation and community contributions
- Enhances food security and economic strength
- Encourages sustainable management of biodiversity

India's rich livestock heritage and growing biotechnological capabilities create unique opportunities. With inclusive policy enforcement, awareness generation and robust commercialization systems, the animal husbandry sector can transition to an innovation-driven, knowledge-secured future that benefits farmers, researchers and the nation.

## References

1. Chavhan, P. M., Agashe, P. A. T. and Gawande, S. N. (2023). *The Indian knowledge system: A way to improve research productivity in the animal husbandry sector*. Maharashtra Animal and Fishery Sciences University.
2. Horislavska, I. V. (2022). Breeding achievement in animal husbandry as an object of intellectual property rights and an object of inheritance in Ukraine and the world. *Law. Human. Environment*, *13*(3), 17–25.
3. Kohler-Rollefson, I. (2001). *Intellectual property rights regime necessary for traditional livestock raisers*. Indigenous Knowledge and Development Monitor, 9(1), 12–15.
4. Payumo, J., Gang, Z., Pulumbarit, E., Jones, K., Maredia, K. and Grimes, H. (2012). Managing intellectual property and technology commercialization: Comparison and analysis of practices, success stories and lessons learned from public research universities in developing Asia. *Innovation: Management, Policy and Practice*, *14*(4), 478–494.
5. Ramesha, K. P. (2011). Intellectual property rights regime for livestock agriculture in India: Present status and future prospects. *Journal of Intellectual Property Rights*, *16*(3), 154–162.
6. Shubeena, S., Hai, A., Hamdani, S. A., Akand, A. H., Thahaby, N., Rasool, S., Iyman, N. and Amin, B. Y. (2022). Role of Indigenous Technical Knowledge (ITK's) in growth and production of livestock sector. *Journal of Biomedical Research and Environmental Sciences*, *3*(1), 014–017.