Cattle Ranching Encroachments

CATTLE RANCHING

Cattle ranching is the process of breeding and raising herds of cattle on large ranches mainly for their meat, milk, and other products.

Illegal cattle ranching is the trespassing into protected areas, indigenous territory and other public lands to clear forests for grazing frequently connected to criminal activity such as drug trafficking.

AGRICULTURAL ENCROACHMENT

Generalized term for any visible plot of land that has been devoid from, or has limited, forest cover.

Two of the main sources of agricultural encroachment are cattle ranching and illegal cattle ranching, which turns natural ecosystems and forest into large pastures for livestock.

BACKGROUND

Deforestation for agriculture and cattle ranching is one of the most complex environmental threat in the western protected area.

Over the past 30 years, deforestation along the Belize-Guatemala border has shifted from slash and burn farming to large cattle pastures. Friends for Conservation and Development (FCD) uses Chiquibul Aerial Survey Program (CASP) imagery; an aerial surveillance program to monitor forest cover from a "bird's-eye view". This factsheet examines these issues within the Vaca Forest Reserve and the Chiquibul Forest Reserve, offering a deeper analysis of the key factors involved, including the impacts of illicit financial flows.

LEGAL FRAMEWORK

Two main Acts are pertinent and applicable to the illicit activity occurring within protected areas:

- **The National Protected Areas Systems (NPAS) Act**
- **The Forest Act**

NPAS ACT

(a) No person shall enter any national park except for the purpose of observing and for education, recreation and scientific research

(b) No animal shall be hunted, killed or taken and no plants shall be damaged, collected or destroyed in a national park or nature reserve

(c) No person shall:

- permanently or temporarily reside in or build any structure of whatever nature whether as a shelter or otherwise;
- damage, destroy or remove from its place therein any species of flora;
- clear land for cultivation; graze domestic livestock

FOREST ACT

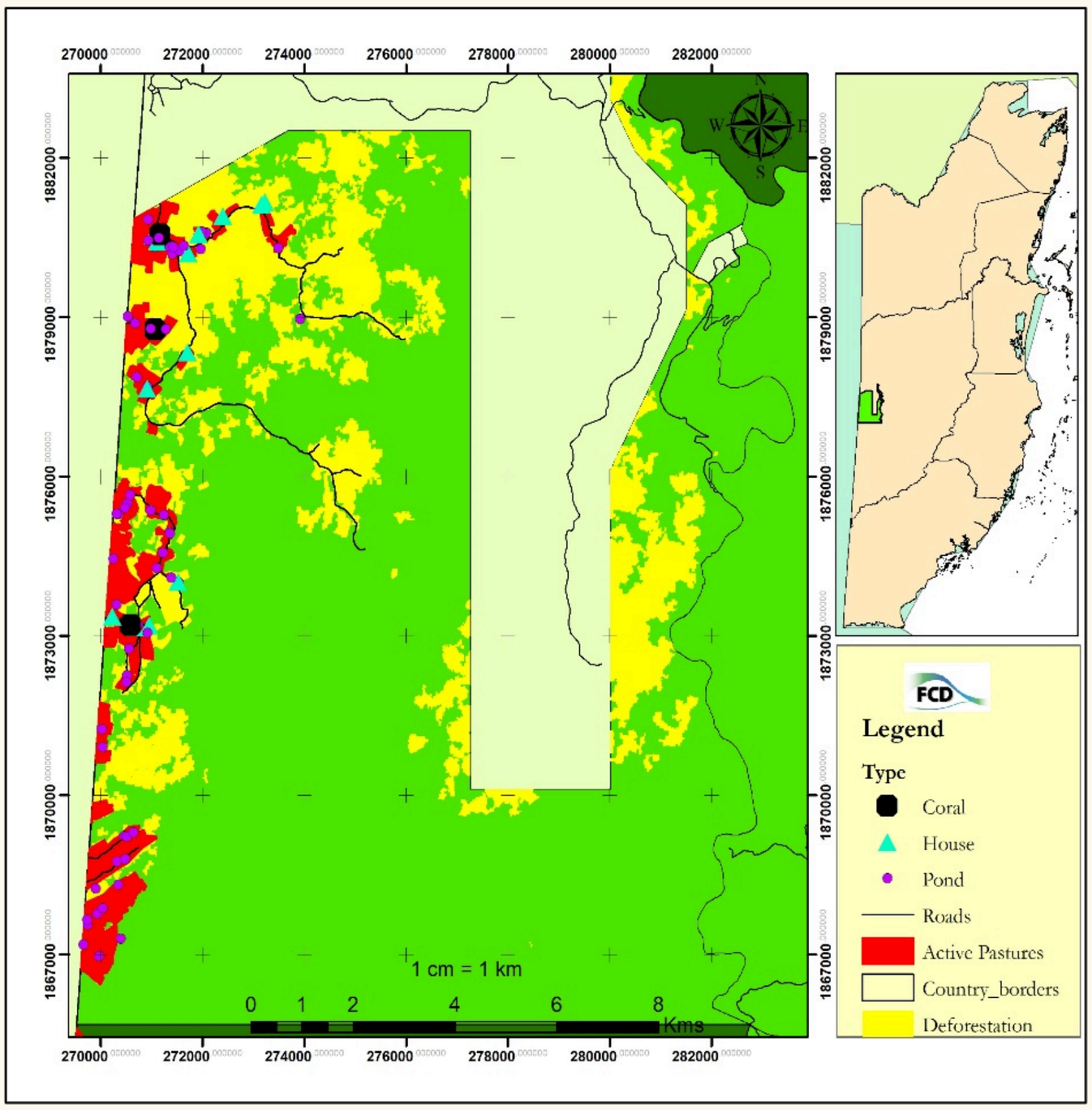
(a) May prohibit any person as regards such reserve or other area from:

- squatting, residing, building huts or cattle enclosures;
- setting fire to any grass or undergrowth, or kindling or carrying any fire, or leaving any fire burning in such manner as to endanger trees or forest produce;
- grazing or pasturing cattle, or permitting cattle to trespass;

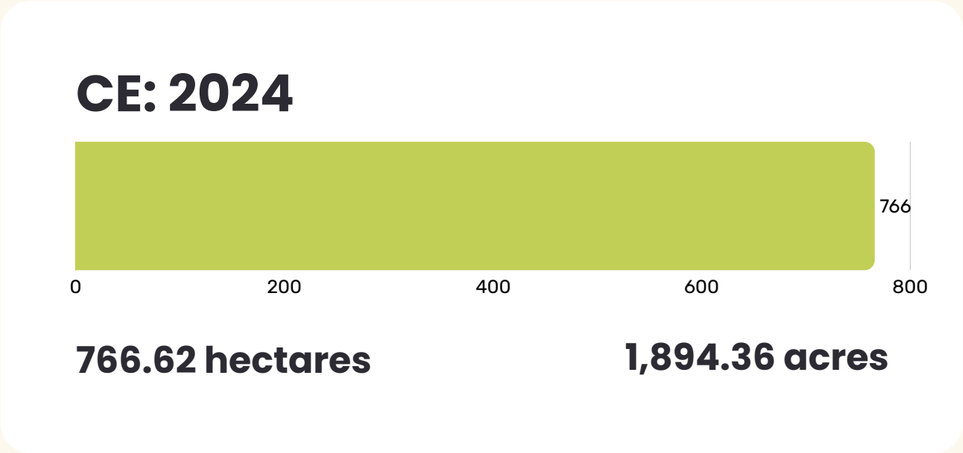
(b) Cattle trespassing in or upon any land in contravention of any rules or regulations made under this Act shall be deemed to have been found in a prohibited area for the purposes of section 6 of the Cattle Trespass Act.

Status in Vaca Forest Reserve (VFR)

As of August 30, 2024, 1,666.61 acres (674.45 ha) were being actively encroached for cattle ranching along the western flank of the Vaca Forest Reserve (VFR).

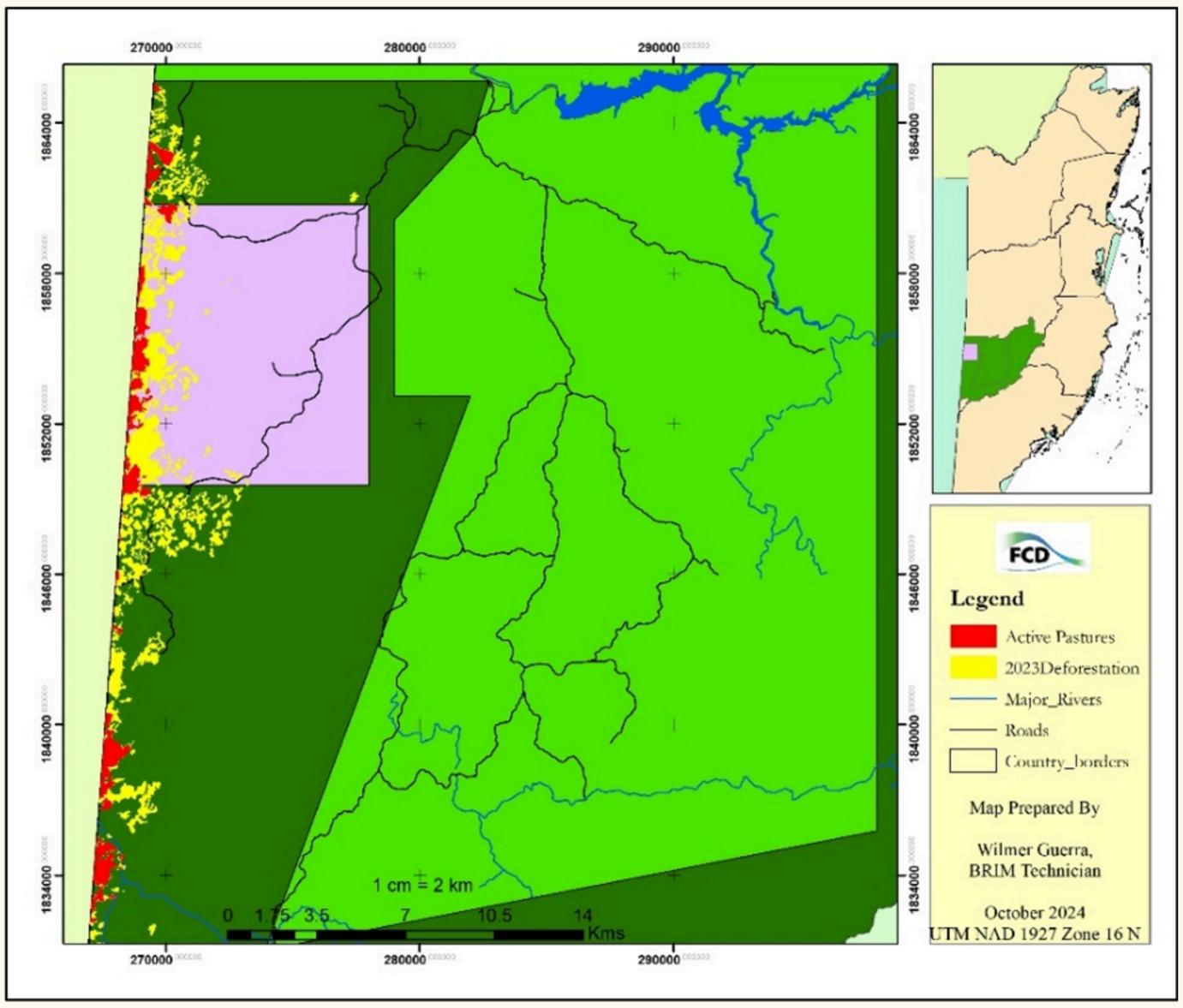


Status in Chiquibul Ecosystem (CE)



As of 2024, illegal ranching has intensified with approximately 1,894.36 acres (766.62 ha) encroached for active cattle pastures.

Major hotspots for active cattle pasture encroachment include Caracol Archaeological Reserve, North Rio Blanco (also known as Jimenez Farm), and the Caballo area.

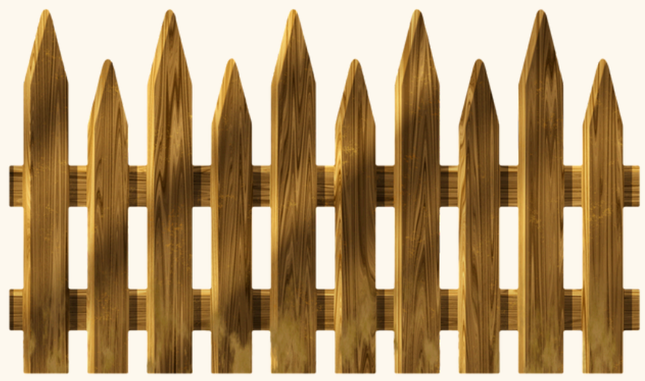


Environmental implications of Cattle Ranching to the Ecosystem

1 Biodiversity Loss

Native forests are cleared for cattle pastures, leading to the displacement or eradication of native plants and animals.

Non-native grasses dominate, significantly reducing the variety of life and weakening ecosystem resilience.

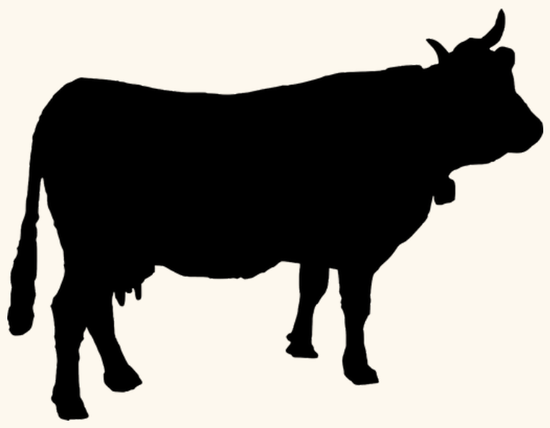


2 Disruption of Ecosystem Services

The loss of biodiversity directly disrupts vital ecological services such as pollination, seed dispersal, and predator-prey dynamics, which are essential for forest health.

3 Reduced Carbon Sequestration

The destruction of tropical forests, which are crucial carbon sinks, severely diminishes the Earth's capacity to absorb atmospheric carbon dioxide.



4 Increased Greenhouse Gas Emissions

Cattle are significant emitters of methane, a potent greenhouse gas.

Deforestation releases stored carbon dioxide, making cattle ranching a major contributor to global warming.

5 Soil Degradation and Erosion

Continuous trampling by cattle compacts the soil, reducing its porosity and fertility.

This leads to increased surface runoff and severe soil erosion, with topsoil washing into rivers and streams.

6 Waterway Sedimentation

Soil erosion, particularly in critical areas like the headwaters of the Mopan River, results in sedimentation of rivers and streams, impacting water quality and aquatic ecosystems downstream, including those in Belize and the Caribbean Sea.

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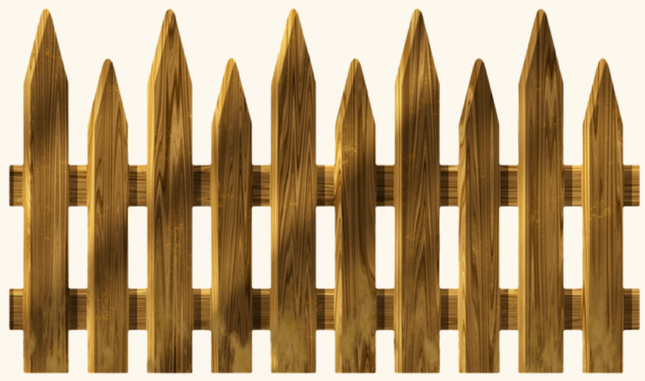
Guerra, W., Manzanero, R. (2024). Status of Cross Border Cattle Ranching Encroachments in the Vaca Forest Reserve and Chiquibul Forest. Friends for Conservation and Development. San Jose Succotz, Cayo, Belize.

Conservation Efforts Against Illegal Cattle Ranching

1 Active Patrolling and Surveillance

FCD rangers conduct extensive patrols, with 180 patrols in the Belize-Guatemalan border region over the past two years, totaling over 1,200 hours and 1,777 km of foot patrols.

These patrols increase surveillance, deter illegal activities such as illegal cattle ranching, and identify new forest clearings and encroachments.



2 Targeted Operational Patrols

FCD maps illegal activity hotspots to prioritize patrols and monitor re-incursions through the Chiquibul Aerial Survey Program (CASP) imagery.

They lead operational patrols with the Belize Defence Force (BDF) to destroy cattle pastures and fences, aiming to deter persistent pasture maintenance.

3 Strategic Cattle Ranching Plan

FCD and the BDF developed a 5-pronged strategy to eliminate illegal cattle ranching from protected areas which includes taskforce management, update data, inform target groups, remove fence and posts, sustain patrols to prevent resurgence.

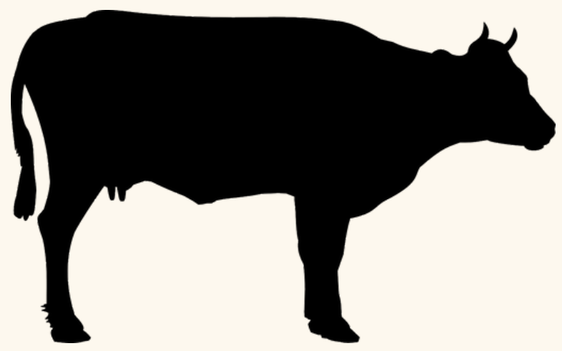
4 Multi-Stakeholder Collaboration and Data Management

The strategy calls for an expanded consortium beyond just FCD and BDF for planning and evaluation (Taskforce management).

It also prioritizes updating and validating data on illegal activities such as illegal deforestation and land clearing, especially in areas like Vaca and Columbia, often through BDF efforts at conservation posts.

5 Community Engagement and Awareness

FCD has increased efforts to educate communities near the border, encouraging sustainable practices to foster local support for conservation, highlighting the importance of preserving the Chiquibul ecosystem.



6 Dismantling Infrastructure and Preventing Resurgence

The strategy includes the removal of fences and posts in key hotspot areas like Caballo, Cebada, and Jimenez.

Frequent patrols are conducted from conservation posts to detect and control any resurgence of cattle ranching, with findings reported to relevant ministries.

Illicit Financial Flows and Financial Crime Risks

Illegal cattle ranching in Belize's western protected areas poses environmental threats and also serves as a conduit for financial crimes and Illicit Financial Flows (IFFs).

These activities exploit vulnerabilities in the cattle supply chain and local governance systems, with national and regional financial integrity implications.

1

Illicit Sale and potential Money Laundering related to Cattle

- Cattle are often moved across borders and sold without documentation, bypassing official inspection systems.
- Proceeds from the illegal sale of livestock may be integrated into legitimate cattle markets, effectively laundering the origin of the funds.

2

Use of Cash and Traceability Risks

- The cattle industry typically operates with high cash volumes and minimal documentation, making it vulnerable to abuse.
- Limited paper trails, lack of itemized receipts, and non-transparent transactions reduce traceability and make it difficult to distinguish legal from illegal operations.
- Criminal groups exploit these gaps to launder money from other illegal sources (e.g., drug trafficking).

3

Criminal Investments and Licenses

- Infrastructure such as mechanized ponds, internal roads, and fences in protected areas often signal large-scale investment by well-financed actors.
- These may be linked to criminal organizations or corrupt entities using the land as a front for territorial control or asset laundering.
- There is a risk that licenses or land claims obtained through fraud or corruption could facilitate further encroachment.

4

Key Financial Integrity Risks

- Undocumented land use and false land tenure claims.
- Cross-border cattle movement without veterinary or customs oversight
- High-cash operations with no electronic records.
- Informal or coercive partnerships with vulnerable communities used as fronts.

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Strengthening Financial Oversight and Interagency Coordination

BACKGROUND

To effectively combat the financial dimensions of illegal cattle ranching, Belize must enhance its policy coherence, institutional coordination, and financial intelligence capabilities.

The cross-sectoral nature of these crimes demands an integrated response from conservation, law enforcement, financial, and regulatory entities.

Assign a designated interagency lead or taskforce for joint monitoring of environmental and financial crimes, especially in cross-border zones.

POLICY AND REGULATORY ALIGNMENT

- Integrate environmental crime indicators into national Anti-Money Laundering (AML) and Combating the Financing of Terrorism (CFT) strategies.
- Promote that the National Protected Areas System (NPAS) Act and Forest Act are linked to financial crime enforcement—including through cross-referencing in national development, environmental, and anti-corruption policies.
- Expand the FCD and BDF Cattle Ranching Strategy to explicitly address IFF risks and financial vulnerabilities in land tenure, licensing, and cattle supply chains.

INTERAGENCY COORDINATION

Establish a formal coordination mechanism between:

- Belize Defence Force (BDF)
- Financial Intelligence Unit (FIU)
- Belize Police Department
- Friends for Conservation and Development (FCD)
- Ministries of Sustainable Development, Natural Resources, Agriculture, and Border Security
- Customs and Immigration Departments

INFORMATION EXCHANGE & TRANSPARENCY

- Enable real-time information sharing on suspicious activities (e.g., large land investments, cash purchases, unlicensed grazing) between environmental enforcement bodies and the FIU & other relevant authorities
- Promote cross-border collaboration with Guatemalan counterparts, including financial units and conservation agencies, to monitor cross-border cattle trade and cash flows.

BENEFICIAL OWNERSHIP (BO) & RISK MONITORING

- Mandate BO disclosure for all land, agriculture, and livestock-related business entities operating near protected areas or receiving agricultural concessions.
- Cross-check BO registries with land lease, cattle movement, and environmental infraction records to flag potential criminal infiltration.
- Encourage blockchain-based traceability pilots to monitor cattle movements from farm to market, reducing anonymity and laundering opportunities.