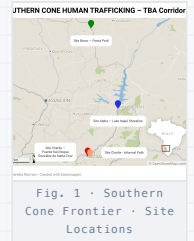


Southern Cone Human Trafficking – Frontier Crossing Typology

Three-site typological assessment of crossing modalities across the Southern Cone frontier · Argentina · Brazil · Paraguay



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EXECUTIVE SUMMARY

This brief assesses human trafficking infrastructure across three sites on the Southern Cone frontier using open-source satellite imagery, prosecutorial data, and documentary evidence. The sites were selected to represent three distinct crossing modalities — formal concealment (Alpha, Foz do Iguacu), frictionless open-border movement (Bravo, Ponta Porã), and clandestine riverbank access (Charlie, Posadas) — rather than as contiguous stops on a single corridor. Each site lies on a separate frontier segment; the three are not geographically proximate. Multi-temporal Sentinel-2 spectral analysis, Google Earth Pro imagery, and cross-referencing against Brazil's forced-labour enforcement database (Lista Suja) identify structural indicators of anthropogenic surface modification at two sites and document a forced-labour absorption cluster in the Pantanal border zone. Evidence is consistent with trafficking networks exploiting each modality; operational linkage between the specific sites is not established by this assessment.

METHODOLOGY

Google Earth Pro | Sentinel-2 L2A | NDVI | Color Infrared (CIR) | NDWI

Multi-temporal analysis | Lista Suja cross-reference

State Dept TIP Reports | UNODC · InSight Crime · OCCRP

Geospatial layer: Sentinel-2 L2A multi-temporal imagery (NDVI · CIR · NDWI) identifies surface disturbance, informal access infrastructure, and seasonal riverbank variation across acquisition windows 2019–2026. Documentary layer: UN Special Rapporteur reports on trafficking in persons · U.S. State Dept TIP Reports (2021–2025) · UNODC Global Report on Trafficking in Persons · InSight Crime and OCCRP network investigations · Lista Suja prosecutorial cross-reference.

SPECTRAL EVIDENCE

NDVI · Site Alpha · May 2026
Low-NDVI zone at shoreline consistent with anthropogenic dock modification; natural formation not excluded without ground truth

CIR · Site Charlie · Apr 2026
Linear feature inland from riverbank consistent with vehicle access; documentary layer carries weight of trafficking inference

LISTA SUJA – REGIONAL CROSS-REFERENCE

13 Entries in frontier municipalities · 2022–2025	109 Workers in conditions analogous to forced labour	5 Entries in Corumbá alone — livestock / ranching	MS · PR Dominant states — Mato Grosso do Sul · Paraná
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SITE ASSESSMENT

ALPHA Foz do Iguacu Lake Itaipú · BR/PY	Persistent informal dock confirmed across 3 Google Earth acquisitions (2019–2022) and Sentinel-2 NDVI/NDWI. Inconsistent with natural formation. Water crossing NDVI · NDWI Multi-temporal GE	CONFIDENCE MOD
BRAVO Ponta Porã P.J. Caballero · BR/PY	No physical barrier — continuous street grid across boundary. Structural fact: HIGH confidence. Zero Lista Suja entries at Ponta Porã / PJC: absence is the finding, warranted by documented high-volume throughput that structurally limits detection — not applied universally. Inference: MOD confidence. Open dry border No spectral anomaly Structural gap	STRUCTURAL HIGH INFERENCE MOD
CHARLIE Posadas / Encarnación Paraná River · AR/PY	Informal access 7 km beyond inspection perimeter. NDVI and CIR (Jan 2025 · Apr 2026) show persistent vegetation gap. Austral summer low-water expands accessible riverbank. River crossing NDVI · CIR Seasonal variation	CONFIDENCE MOD

KEY FINDINGS

- Three modalities, not one corridor.** Alpha (formal concealment), Bravo (frictionless movement), and Charlie (clandestine river access) represent documented crossing modalities across three separate frontier segments. Evidence is consistent with networks exploiting each; whether the sites constitute an operationally integrated system is not established by this assessment.
- Corumbá cluster is systematic — and distinct.** Five Lista Suja livestock entries in one Pantanal municipality (2024–2025) document forced-labour absorption at inland fazendas. Note: Lista Suja is a domestic forced-labour register; Corumbá sits on the Brazil–Bolivia frontier, a separate segment from Alpha, Bravo, or Charlie. Treated here as a regional indicator of frontier labour exploitation, not as site-level evidence.
- Absence as evidence — at Bravo specifically.** Zero Lista Suja entries at Ponta Porã reflects inspection gaps, not absence of exploitation. This inference is warranted by: (1) documented high-volume throughput structurally limiting detection; (2) UNODC and State Dept reporting on twin-city open-border dynamics. Disconfirming evidence: Lista Suja entries at PJC-region fazendas comparable in density to Corumbá — their absence is not equivalent to Bravo's.
- Multi-stream convergence.** Documented networks in this frontier zone serve drug, arms, cigarette, and human trafficking simultaneously. One 2023 network (OCCRP) used both labour trafficking and goods smuggling through the same crossing infrastructure — establishing co-use of border infrastructure, not site-specific trafficking evidence.

CONCLUSION

The multi-source assessment supports the following: anthropogenic surface modification at two crossing sites in a frontier region with documented trafficking and forced-labour activity; a systematic forced-labour absorption cluster at inland Pantanal fazendas; and an open-border modality that structurally generates no enforcement record. The evidence does not establish that these specific sites constitute an integrated trafficking system. The stronger claim — and the one this typology supports — is that the Southern Cone frontier offers networks a menu of modalities, each with distinct enforcement vulnerabilities, and that satellite indicators and prosecutorial data together map those vulnerabilities more precisely than either layer alone.