

Biomass traceability in Bolivia

An overview of Bolivia's biomass traceability system and how it supports auditable wood sourcing.

Explainer document with original forest records and independent verification, from timber sourcing to biochar use

At Exomad Green, we turn sawmill residues into biochar for durable carbon removal. Knowing where that material comes from is central to our work. Our sourcing checks are aligned with the EU Deforestation Regulation (EUDR) requirements, combining verification of forest approvals, timber-origin records and supplier registrations with geolocation and forest monitoring.

Bolivia's forestry system produces a traceability chain that can be audited step by step. This brief explains that system through six traceability points. Original timber records from Riberalta will serve as the basis to illustrate forest approval and processing documentation; and independent audits of our facility there show how biomass sourcing, biochar production and end use are verified.

Traceability point	What the records identify	Page
1 Forest Plan Approval	The general management plan	2
2 Harvest selection	Annual harvest plan. The trees, species and quantities authorised	2
3 Log movement	The forest origin, log sections and destination mill	3
4 Timber processing	The references retained in subsequent products delivered	4
5 Biomass sourcing	The supplying mills behind recorded residue deliveries	5
6 Biochar delivery	The quantity delivered and its end use	5

Why the records can be checked

Law 1700 requires forest management plans and annually updated mill supply programmes. Under Article 27.II, the forestry professionals who prepare and sign the plans bear civil and criminal responsibility for the truthfulness and completeness of their information. [1]

Forest-origin certificates and retained sawmill records allow the source references and quantities to be checked through successive stages. Bolivia's forestry authority, the ABT, administers authorisations, registers the certificates and has inspection and audit powers. [2–3]

These forestry records can be requested from ABT under Article 24 of Supreme Decree 24453, using the relevant office's request form and paying applicable reproduction costs. Legally protected information shall not be disclosed, such as any information that hinders the protection of personal data, privacy, intellectual, commercial and industrial property. Auditors may also request supporting records directly from the relevant operator, with access and confidentiality arrangements agreed with the record holder.

Original records are shown in Spanish, with English explanations. Personal and sensitive details are redacted; our publication approach and sources appear on page 6.

The approved forest and harvest

The forest management plan establishes the source; the annual approval defines the area authorised for harvesting. The original records below illustrate this relationship through an operation in Riberalta.

POR TANTO

El suscrito Responsable de Unidad Operativa de Bosque y Tierra de la Autoridad de Fiscalización y Control Social de Bosques y Tierras (ABT), en uso de sus legítimas atribuciones conferidas por ley y de acuerdo con el Informe técnico que antecede a través del Sistema ABT Digital 2.0 y documentos en físico”;

RESUELVE

PRIMERO: APROBAR el Plan Operativo Anual Forestal para la AAA-2023 en una superficie de 266.05 hectáreas al interior TCO [REDACTED] (COM. INDIGENA [REDACTED] ubicada en el municipio de RIBERALTA, provincia VACA DIEZ en el departamento de BENI, quedando de esta manera establecidas las especies sujetas al aprovechamiento, las superficies de aprovechamiento y demás datos técnicos contenidos en el documento POAF y su ficha técnica, mismos que forman parte indisoluble de la presente Resolución.

POAF-0988-2024, page 2. The operative paragraph approves the annual plan and its 266.05-hectare area. [4]

General management plan	Annual approval	Annual harvest area
PGMF-1397-2018 8 October 2018	POAF-0988-2024 17 December 2024	266.05 hectares AAA-2023

The annual plan identifies the harvest selection

The technical fiche records 296 inventoried trees and 227 selected for harvest, leaving 69 outside the harvest selection (296 – 227). The selection averages 0.85 trees per hectare. The accompanying census identifies individual trees by species and number. [5]



Original fiche: approved PGMF reference

El POAF tiene un PGMF que lo respalde
TIENE PGMF APROBADO
Nº Resolución o Código de aprobación del PGMF
RU-ABT-RIB-PGMF-1397-2018

Original fiche: annual area and compartment

Nombre del Compartimiento o Sub-Compartimiento
AAA-2023
Superficie a aprovechar en el presente POAF (ha)
266,05

Original fiche: species, harvest quantities and census totals

ESPECIES nombre común (nombre científico)	DMC	N Aprov.	Vol. Aprov.	N Total	Vol. Total
ALMENDRILLO AMARILLO (Apuleia leiocarpa (J. Vogel) J. F. Macbr.)	50	42	114,185	53	152,468
ALMENDRILLO NEGRO (Dipteryx odorata (Aublet) Willd.)	50	66	247,825	84	312,909
BACURI (Rheedia gardneriana Miers)	50	2	8,127	4	14,800
MANI (Pithecellobium corymbosum (Rich.) Benth.)	50	4	17,610	6	26,653
MASARANDUBA (Manilkara bidentata (A. DC.) Chev. Subsp. Surinamensis)	50	10	34,884	13	44,284
PAQUIO (Hymenaea courbaril L.)	50	7	24,061	11	36,723
ROBLE (Amburana cearensis (Allemão) A. C. Smith)	50	13	39,150	17	54,818
TAJIBO (Tabebuia sp.)	50	34	70,562	44	105,731
TIPA (Tipuana tipu (Benth.) Kuntze)	50	27	37,411	35	52,791
TOCO (Enterolobium confertissilquum (Vell. Conc.) Morong)	50	22	70,331	28	93,840
VERDOLAGO (Terminalia amazonica (Gmelin) Exell)	50	0	0,00	1	1,404

Totals from the same technical fiche

Total especies	227,00	664,15	296,00	896,42
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Original totals from the same fiche: 227 selected out of 296 inventoried trees. The 69 retained trees are the difference. [5]

The link to the next stage is POAF-0988-2024. That approval number appears again on the log and processed-timber certificates. Following completion of the harvest, the operator is required to submit an Annual Forest Harvesting Operations Report (IAPOAF) to ABT recording what was actually harvested against what was authorised here. ABT reviews this as part of its ongoing monitoring and enforcement responsibilities.

PGMF means general forest management plan; POAF means annual operational plan. AAA-2023 is the harvesting-area label, distinct from the 2024 approval date. The certificates use 988 and 0988 for the same approval.

TRACEABILITY POINT 03

From the forest to the mill

Two Certificates of Forest Origin, known as CFOs, record logs under that annual approval. Both name Riberalta as the destination and identify the timber operation by ABT registration 00218. Departure is recorded on 13 September 2025. The QR codes printed on CFOs form part of ABT's document-security system. Together with each certificate's unique serial number and validation code, they enable certificate information to be checked and strengthen verification along the timber chain of custody.

Original CFO A1 excerpts: RIB-A2504513 (left) and RIB-A2504514 (right). Origin, destination, log sections and totals are retained; black bars mark redactions. [6]

Log certificate	Log sections recorded	Recorded volume
RIB-A2504513	6	26.39 m ³
RIB-A2504514	20	39.25 m ³
Combined totals	26	65.64 m ³

The mill account carries the identifiers forward

The mill's internal chain-of-custody workbook links Tree 2, section A, from RIB-A2504513 to RIB-B2600658, and Tree 2, section B, from RIB-A2504514 to RIB-B2600395. The selected workbook cells below show these connections. [11]

	P	S	T	AE	AQ
2	N° CFO A1	N° árbol	Sección	N° CFO B1-01	N° CFO B2-01
6	RIB-A2504514	2	B	RIB-B2600395	DDSC-B2604264
35	RIB-A2504513	2	A	RIB-B2600658	DDSC-B2604264

Workbook screenshot: "Datos", rows 6 and 35; columns P, S, T, AE and AQ. Intervening rows and columns are omitted. N° árbol = tree number; Sección = log section. [11] These links trace selected log sections. The sawn-timber certificates also include material from other log certificates. [6, 11]

From sawn timber to decking

After sawing, both product certificates retain POAF-988-2024 and record movement from Riberalta to Cotoca, Santa Cruz. RIB-B2600395 records 8,527.58 board feet and RIB-B2600658 records 8,408.33: a combined 16,935.91 board feet. [6]

RIB-B2600395, source, destination and product fields. [6]

RIB-B2600658, source, destination and product fields. [6]

The decking certificate DDSC-B2604264, dated 8 April 2026, names both sawn-timber certificates under SUSTITUYE A CFO, meaning “replaces CFO”. It retains the forest approval and records 11,852.50 board feet of decking. [6]

DDSC-B2604264, source references and product fields. This is a production record. [6]

A reproducible accounting check. The decking quantity is 69.98% of the combined sawn-timber quantity: $11,852.50 \div 16,935.91$, both in board feet. [6] The workbook applies a 70% conversion factor with adjustments to its decking calculations. This comparison checks documentary accounting; it does not measure residues generated or delivered to Exomad. [11]

Auditors can assess residue quantities by reconciling CFO-backed timber inputs with the mill’s supply and processing programme (PAPMP), annual supply report (IAPAP), production records, inventories and residue deliveries for the same period, using consistent units and documented processing yields.

The workbook connects the selected log sections to RIB-B2600658 and RIB-B2600395; the downstream decking certificate expressly names both sawn-timber certificates. [6, 11]

TRACEABILITY POINT 05

From sawmill residues to biochar use

The forest records above demonstrate how timber origin and processing are documented in practice. At the supplying-mill level, RUEF registration identifies the registered operator, while CFOs and mill records document timber inputs and processing. The following section shows how Exomad's supplier checks, residue-delivery records and independent facility audits establish traceability from supplying mills through biomass deliveries to biochar production and end use.

Biomass deliveries identify the supplying mill

The audit dated 24 March 2026 checked recorded biomass deliveries against CERT-ABT-RIB-016-2025, an ABT sawmill certificate identifying the suppliers. EnergyLink, an independent third-party auditor, also checked the suppliers' registration status against ABT's public register of valid and active registrations and confirmed their validity for the monitored period. [8]

RUEF (Registro Único de Empresas Forestales) is ABT's registration system for forest-sector businesses, and current registrations can be checked on ABT's website. Mills must retain CFO records for all timber purchased. Article 72 of Supreme Decree 24453 provides for annual renewal of mill operating authorisation based on compliance with the supply and processing programme. A valid RUEF confirms the mill's current registration with ABT. Verification of timber origin and quantities can be done through examination of CFOs and the mill's purchasing, inventory and processing records. [2, 7]

Exomad Green only collects residues from sawmills with a valid RUEF. Its supplier-review procedure requires verification against ABT's register, an active municipal operating licence, tax registration, local sawmill-association membership and checks for child labour.

The later report, dated 11 September 2026, repeated supplier checks using the current ABT certificate and register. It confirmed compliance with the applicable sustainable-biomass requirement for 20 July–19 August 2026. [10, p. 10]

Connection	Supporting records
Residue delivery and source mill	Biomass delivery records and ABT supplier certification
Biomass input to production	Biomass and biochar records checked against operating logs
Biochar dispatch to end use	Carbonfuture records, delivery information and end-user evidence

Our published project description explains how biomass processed and biochar produced are recorded and checked against operating logs. [9]

4,475.87 tonnes of dry biochar

Produced at Riberalta during 20 July–19 August 2026, as reported in the independent audit. [10, p. 1]

TRACEABILITY POINT 06

Biochar delivery and end use are recorded

Outgoing biochar truckloads are recorded in Carbonfuture as packing units. Gross weight and moisture are measured at dispatch; delivery records identify the end-use location and application. EnergyLink sampled 64 of 868 packing units and checked delivery and application evidence against signed end-user attestations and photographs. [10, pp. 9, 15 and 20]

EnergyLink concluded that the applicable Puro.earth eligibility requirements were met for that monitoring period. The report is publicly available through the Puro.earth registry. [10, p. 8]

The example shows how Bolivia's forest records support traceability through timber processing, while independent facility audits verify biomass sourcing and biochar use.

Evidence and responsible disclosure

Why we redact these original documents

Personal identifiers, signatures and counterparty details are redacted or omitted from these public excerpts in compliance with personal data protection provisions. The map retains the harvest layout and tree numbering, with names and coordinate labels masked. Black bars identify redactions. original QR codes remain visible in the certificate excerpts.

Document references, registration numbers, dates, species and quantities remain visible so readers can follow the connections. Redactions are permanently applied to the reproduced images. Each excerpt is identified by its source; the workbook screenshot retains the original cell references and values, with unrelated rows and columns omitted.

Conclusion

Together, ABT's forest approvals, CFOs and mill records provide the foundation for tracing timber from authorized harvesting through processing. Exomad's supplier and delivery records connect the supplying mills to the residues used in biochar production, while independent audits inspect and corroborate the supporting evidence. This combination provides a documented, verifiable basis for assessing biomass origin, legal sourcing and compliance with Puro.earth's requirements.

The legal framework

[1] [Law 1700](#). Art. 27.I-III: management plans, professional responsibility and processors' source programmes.

[2] [Supreme Decree 24453](#). Arts. 69 and 71-74: annual planning, tracking, retained CFO copies and company records.

[3] [Supreme Decree 071](#). Art. 31(b), (i), (j): ABT authorisations, registers, inspections and audits.

Original records used in the example

[4] RU-ABT-RIB-POAF-0988-2024, 17 December 2024, pp. 1-2, referring to PGMF-1397-2018.

[5] FT-03 technical fiche, p. 1, and census in the annual plan.

[6] CFOs RIB-A2504513 and RIB-A2504514; RIB-B2600395 and RIB-B2600658; DDSC-B2604264.

[7] ABT Web Page http://usi.abt.gob.bo/abt/modulos/registro_empresas

Independent audits and facility records

[8] [EnergyLink audit dated 24 March 2026](#). p. 10. Monitoring period 20 January-19 February 2026. Recorded biomass deliveries and supplier checks.

[9] [Riberalta public project description](#). PDF p. 7. Recording of biomass input and biochar production against operating logs.

[10] [EnergyLink audit dated 11 September 2026](#). pp. 1, 8-10, 15 and 20. Monitoring period 20 July-19 August 2026. Biomass sourcing, biochar production and end use.

[11] Sawmill chain-of-custody workbook, "01 Base CoC.xlsb", sheet "Datos". Rows 6 and 35: tree-section links reproduced on page 3.

[Riberalta project and public audit reports](#). Puro.earth production facility 292788.