



D4 – Model Training Data Package v2

Deliverable Overview

Lead(s)	DLR
Contributor(s)	FZJ, GFZ, AWI
Work Package	WP 2.1 (Data collation, pre-processing, curation: Amazon & Polar)
Stage	Foundation Stage (I)
Duration	PM 1 (05/2024) – PM 3 (07/2024; planned), PM 15 (07/2025; revised)
Dependencies	None
Outcome (Type)	Data, Report
Link	
Status	<input type="checkbox"/> To be done <input type="checkbox"/> In progress <input checked="" type="checkbox"/> Completed

Executive Summary

This document describes the synthetic aperture radar (SAR), optical lidar, and environmental data over the Amazon forest, which have been prepared and delivered for use with the 3D-ABC foundation model. All data have been selected to be as temporally co-located as possible and reprojected from their original geographic coordinate system to the UTM system, based on the Harmonized Landsat and Sentinel-2 (HLS) dataset. Data for more than 900 HLS tiles have been produced.

Results

Five data sources have been considered:

- spaceborne TanDEM-X interferometric data at 20 m resolution,
- spaceborne HLS data at 30 m resolution,
- spaceborne GEDI lidar data at 25 m footprint diameter,
- airborne lidar scanning data at 1 m (canopy height model) and 30 m (biomass) resolution, and
- ERA5 data.

For each data source, the report describes the criteria for data selection, the data preparation workflow and the delivered data.