

4. Non-vegetated area	4.2. Urban infrastructure	Colombia	Human settlement areas associated with large and small urban centers (towns) with built-up infrastructure such as road networks, railways, and associated lands, as well as other artificial areas like hydrocarbon exploitation sites, hydroelectric plants, military bases, airports, port areas, and non-agricultural green areas such as recreational facilities in urban centers, urban lawns, road separators, and unconventional landing strips in rural areas. Also included are peripheral areas gradually being urbanized for residential and/or industrial purposes.	OB	S	ILV-C1-ID24-AM.png	GE-COL5-ID24-AM.png	P-C5-ID24-AM.png
		Ecuador	Human settlement areas associated with large and small urban centers (towns) with built-up infrastructure such as road networks, railways, and associated lands, as well as other artificial areas like hydrocarbon exploitation sites, hydroelectric plants, military bases, airports, port areas, and unconventional landing strips in rural areas. Also included are peripheral areas gradually being urbanized for residential and/or industrial purposes.	OB	S	https://drive.google.com/file/d/1sWMNPiGs1CWK15jP7uERQgyDTQGNi/view?usp=sharing	https://drive.google.com/file/d/1nf9KdpEYIud7QhfVdZvn35D0qmpmLZ/view?usp=sharing	https://drive.google.com/file/d/1Kkydu_eQHnuF5MQ_nq6-p8L2E-0E3dV/view?usp=sharing
		Guyana	Human settlement areas with built-up infrastructure (roads, buildings, etc.). Also includes urban development and population centers located in the peripheries, which are in constant expansion.	OB	S			
		French Guiana	Human settlement areas with built-up infrastructure (roads, buildings, etc.). Also includes urban development and population centers located in the peripheries, which are in constant expansion.	OB	S			
		Peru	Areas associated with urban centers, where built structures have been identified. Additionally, various types of infrastructure such as urban parks, roads, airports, industrial areas, military and oil bases are included. It is worth noting that the mapped areas are those whose spectral response allowed them to be differentiated from other land covers; thus, small settlements were not identified.	OB	S	https://drive.google.com/file/d/1NrgGg_NWzJ3Iq0SbVe_15db_9e0BbI/view?usp=share_link	https://drive.google.com/file/d/1E6tPd5PW9fIdg3ffn8WOK7U4p5WgA/view?usp=share_link	https://drive.google.com/file/d/1D04DrW748bJpF4S3y4nHhHpt490FX5f/view?usp=share_link
		Suriname	Human settlement areas with built-up infrastructure (roads, buildings, etc.). Also includes urban development and population centers located in the peripheries, which are in constant expansion.	OB	S			
		Venezuela	Human settlement areas with built-up infrastructure, including buildings and road networks. It also incorporates expanding urban peripheries. In the Amazon, it includes indigenous communities.	OB	S	https://drive.google.com/file/d/1Vv7BLCt-SYz8YQ3L-llX-QH3VIEPtc/view?usp=share_link	https://drive.google.com/file/d/1_87YER8su_KP6Rv8bZ430T-9yLWA/view?usp=share_link	https://drive.google.com/file/d/1wK0-w-n9v03Wk37Pa0TtBzBlkEqvVO/view?usp=share_link
	4.3. Mining	Bolivia	In Bolivia, there are two types of mining: open-pit and alluvial. Mining involves both underground and open-pit exploitation, where the extracted mineral in both cases is transported to treatment or concentration plants. Mechanical means or explosives are also used to remove the soil covering or surrounding the geological formation of the deposit or material bank. Gold/alluvial mining includes both the exploitation of primary and secondary deposits, with current activities mainly concentrated in the Tipuani and K'aka river basins, where deposits in ancient riverbeds or on platforms and terraces of recent rivers are mined.	OQ	Min	ID30_mineria_Amaz_lan dsat	ID30_mineria_Amaz_go gle	ID30_mineria_Amaz_Paisaje
		Brazil	Areas related to industrial or artisanal mineral extraction (garimpos), with clear soil exposure due to human action. Only areas near mineral resource references from CPRM (GeoSGB), AhkBrazilien (AHK), the DETER project (INPE), the Socioenvironmental Institute (ISA), and FL Lobo et al. 2018 are considered.	OQ	Min			
		Colombia	These areas involve the extraction or accumulation of materials from open-pit or fluvial mining, with clear soil exposure. It does not differentiate whether the mining is industrial, artisanal, riverside, or illegal. Additionally, sedimentation pools associated with this activity are included.	OQ	O	ILV-C1-ID30-AM.png	GE-C5-ID30-AM.png	P-C5-ID30-AM
		Ecuador	Surface areas where stone or mineral materials are extracted, with clear soil exposure. It does not differentiate whether the mining is industrial or artisanal, legal or illegal, metallic or stone-based. Most mining is alluvial, and it is not an activity typically carried out in underground mines. No mining has been mapped in the Andes biome.	OQ	O	https://drive.google.com/file/d/1M1M8p246u7wJAANq858pssy0S2W53Q/view?usp=sharing	https://drive.google.com/file/d/1JTW0UaWj5bXmNrdH_E4PMCI9y5w7CZ/view?usp=sharing	https://drive.google.com/file/d/1VizxDc293T32fAbm4C10aPn69Uje-view?usp=share_link
		Guyana	Areas of mineral extraction, with clear soil exposure. It does not differentiate whether the mining is industrial, artisanal, riverside, or illegal.	OQ				
		French Guiana	Areas of mineral extraction, with clear soil exposure. It does not differentiate whether the mining is industrial, artisanal, riverside, or illegal.	OQ				
		Peru	Areas of mineral extraction, with clear soil exposure. It does not differentiate whether the mining is industrial, artisanal, riverside, or illegal.	OQ	Min	https://drive.google.com/file/d/1B1_u3bNaxbVbRYAShuMY0YxUJ_GGQ/view?usp=share_link	https://drive.google.com/file/d/1wK6yUW5F83wAXe_w4c6eWbK6CXEzF7Q/view?usp=share_link	https://drive.google.com/file/d/1StzL4_cyUJk9RBSV99xj-60eCocz/view?usp=share_link
		Suriname	Areas of mineral extraction, with clear soil exposure. It does not differentiate whether the mining is industrial, artisanal, riverside, or illegal.	OQ				
		Venezuela	Areas of mineral extraction, generally involving soil removal and exposure of lithological material. It includes various types of industrial mining. In the Amazon, mining operations are usually for metallic minerals, primarily gold. It includes artisanal, riverside, or illegal extraction, which leads to the loss of vegetation cover and soil removal and erosion.	OQ	M	https://drive.google.com/file/d/1U7IwrNmlKuaVyzW7mC3uwl9D5ceM/view?usp=share_link	https://drive.google.com/file/d/1wTcR_aWt6GALUzPK0pa3h9aniRPVb/view?usp=share_link	https://drive.google.com/file/d/1KEPhoPaPejD0R0LbV7d0z2ibMvZ3LV/view?usp=share_link
	4.4. Other natural non-vegetated area	Bolivia	In the Amazon region, these areas are usually found on low, gentle slopes with some type of erosion or landslides; on plateaus, generally with reduced surfaces and rocky fields. They are also distinguished on cliffs and rock towers. Their soils are shallow and have little organic matter, and are poor in nutrients. In the Andes, Valleys, and Tucumano-Bolivian Biomes, these areas appear on surfaces with saline or clay soils in the semi-arid puna region. Additionally, within this region, there are sediments from water bodies. The soils are saline and mineralized.	OX	S	ID68_Andes_Valles_Lan dsat	ID68_Andes_Valles_Goo gleEarth	ID68_Andes_Valles_P aisaje
		Colombia	Includes areas devoid of vegetation or with scarce vegetation cover, originating from natural erosion processes or natural phenomena. These include landslides, wind chagras (wind-borne soil erosion), among others.	OX	O	ILV-C2-ID68.png	GE-C2-ID68.png	P-C2-ID68.png
		Ecuador	Areas with poorly developed soils and sparse or non-existent vegetation, formed by natural geological and climatic processes. This includes high-altitude deserts, arid zones, and areas affected by landslides, characterized by sandy or rocky soils. These areas may have very sparse vegetation adapted to extreme edaphic and climatic conditions.	OX	O	https://drive.google.com/file/d/1EintTn0tSIpVfDWSZV3zNOiHcIDcEmp/view?usp=sharing	https://drive.google.com/file/d/1sxEXb84N2GtYhAnY8zkhfamWC9K5w/view?usp=sharing	https://drive.google.com/file/d/1RvVQXvbuo1W4nBLJlPno_AofTqY1Jp/view?usp=sharing
		Guyana	(No specific description provided).	OX	O			
		French Guiana	(No specific description provided).	OX	O			
		Peru	Areas devoid of vegetation or with scarce vegetation cover, originating from natural erosion processes or natural phenomena. These include landslides in the Amazon and exposed Andean soil, among others.	OX	O	https://drive.google.com/file/d/1J86-D13OUy7E7_E6xzZ1CnHlRO2M5a/view?usp=drive_link	https://drive.google.com/file/d/1C9jF6CsDAALNXyPL_Z04Kv56UOXd56/view?usp=drive_link	https://drive.google.com/file/d/1O8PCN1Srn93k5d2ZV03Jm1YtWXXDi/view?usp=drive_link
	Suriname	(No specific description provided).	OX	O				
	4.5. Other anthropic non-vegetated area	Bolivia	Areas of transition between crops, roads and highways, airstrips, industrial yards, and recently deforested zones.	OX	S	ID_25_Otra_Amazonia_Otra_area_sin_vegetacion_Imagen	ID_25_Amazonia_Otra_area_sin_vegetacion_google_earth	ID_25_Otra_Amazonia_Otra_area_sin_vegetación_Paisaje
		Brazil	Areas of impermeable surfaces (infrastructure, urban expansion, or mining) not assigned to specific classes.	OB, OQ	S, Min			
		Colombia	Areas devoid of vegetation or with scarce vegetation cover of anthropogenic origin (infrastructure, urban expansion, or mining) not mapped in specific classes. Also included are burned areas and crop areas in preparation	OX, OB, OQ	O	ILV-C1-ID25-AM.png	GE-C5-ID25-AM	P-C5-ID25-AM
Ecuador		Areas with little or no vegetation of anthropogenic origin, not mapped in other classes. May include areas of transition between crops, roads and highways, airstrips, industrial yards, and recently deforested zones.	OX	O, S	https://drive.google.com/file/d/1QCC3q2q2vq60FCC8DpU9yEId-s0MsMqU/view?usp=sharing	https://drive.google.com/file/d/1KxAK6Dh_VKVKbXb-MTJ-gv57vKoaJ/view?usp=sharing	https://drive.google.com/file/d/1W_TD0QpnQ593rWlVEBuQ104AuqRw/view?usp=sharing	
Guyana		Areas with little or no vegetation of anthropogenic origin, not mapped in other classes. May include areas of transition between crops, roads and highways, airstrips, industrial yards, and recently deforested zones.	OX					
French Guiana		Areas with little or no vegetation of anthropogenic origin, not mapped in other classes. May include areas of transition between crops, roads and highways, airstrips, industrial yards, and recently deforested zones.	OX					
Peru		Areas devoid of vegetation or with scarce vegetation cover of anthropogenic origin (infrastructure, urban expansion, or mining) not mapped in specific classes. Also included are burned areas and crop areas in preparation or fallow.	OX	O	https://drive.google.com/file/d/1Nz4TGT0uicPD3IntVz-SKb58wyy60C/view?usp=drive_link	https://drive.google.com/file/d/1eg98c8yb4h4Qhuv09DBhdH-FM4elo6a/view?usp=drive_link	https://drive.google.com/file/d/1c9y3zic0go_40Q3_o6nXM20bGzBU/view?usp=drive_link	
Suriname		Areas with little or no vegetation of anthropogenic origin, not mapped in other classes. May include areas of transition between crops, roads and highways, airstrips, industrial yards, and recently deforested zones.	OX					
Venezuela	Areas modified or created by human activity where vegetation has been removed or has not developed. These areas include spaces with various infrastructures such as industrial yards, ports, airports, dams, airstrips, major roads, and other infrastructure outside urban areas.	OX	S	https://drive.google.com/file/d/1AoEjUgaVnAUROKITyC4G2OouCTeOUw/view?usp=share_link	https://drive.google.com/file/d/1HqQIfeonHC8vc9fChL6lxLAB5UjNpe7vew?usp=share_link	https://drive.google.com/file/d/1ClII7cVK0TKO-1J1CQL8YwA0GpRG8/view?usp=share_link		
5. Water	5.1. River, lake and ocean	Natural or artificial surface water bodies: Includes rivers, lakes, reservoirs, and other water bodies.	IRP, IRS, IL, ID, IP	A, Res	https://drive.google.com/file/d/1lERKnXrdDE6He93MieTmPTTat5c9V_3/vew?usp=sharing	https://drive.google.com/file/d/1Z2ZqWKGpPdr2Mb1gg3ITrZnCmJDeYUC/vew?usp=sharing	https://drive.google.com/file/d/1C9y3zic0go_40Q3_o6nXM20bGzBU/view?usp=sharing	
	6. Not observed	Area of permanent ice or snow cover: Located on Andean summits, resulting from the accumulation, compaction, and recrystallization of snow.		O	https://drive.google.com/file/d/1LnRxfG5Qo-Z3H_CwUDB_22k389ZEJHw/view?usp=sharing	https://drive.google.com/file/d/1zKtUO_KAWDl15taByw15NWCzXn_Rfn/view?usp=sharing	https://drive.google.com/file/d/152-jRoRPI0wNa-wWmKFIETRC652SL/view?usp=sharing	
6. Not observed	Areas that could not be identified in their classes: Due to the presence of clouds, cloud shadows, atmospheric noise, or the quality of satellite images.							

* FAO, 2012. Manual for integrated field data collection. Rome: FAO. p.10-12

**IPCC, 2006. 2006 IPCC Guidelines.