



Legend Description of land use and land cover used in the collection 2 of MapBiomias Bolivia

Class Level 1	Class Level 2	Region	Description	FAO Classes ***	IPCC Classes ****	Google Earth	Imagen Landsat	Photo
1. Forest formation	1.1 Forest	Amazonia	In the High Amazon region, it corresponds to a plant formation dominated by wooded and evergreen physiognomies, which are generally distributed above 1,000 m of altitude to just over 4,000 m, mainly occupying the eastern portion of the tropical Andes. It also includes the Yungueño forests.	FEP, FEM, FEY, FSP,	FNM, FSEC, CS	<a href="#">ID03_AmazoniaAlta_Bosque_GoogleEarth</a>	<a href="#">ID03_AmazoniaAlta_Bosque_Landsat</a>	<a href="#">ID03_AmazoniaAlta_Bosque_Paisaje</a>
			In the Lower Amazon region, it is mainly made up of almost evergreen (30-45m), evergreen (30-35m) humid forest, evergreen forests in transition to seasonal semi-deciduous forests of the Chiquitano Dry Forest (>25 (30) m), gallery forest and forest islands.	FEP, FEM, FEY, FSP,	FNM, FSEC, CS	<a href="#">ID03_AmazoniaBaja_Bosque_GoogleEarth_d1</a>	<a href="#">ID03_AmazoniaBaja_Bosque_Landsat_d1</a>	<a href="#">ID03_AmazoniaBaja_Bosque_Paisaje_d1</a>
		Andes	Inter-Andean dry forests and Polylepis forests. The former are distributed between 1,000 and 3,000 m of altitude, occupying valleys and lower parts of slopes. They include low, deciduous and thorny forests, with shrubby tree canopy 3 to 5 m high and columnar cacti up to 10 m; and semi-deciduous forests, with a tree canopy of 10 to 15 m. On the other hand, the Polylepis forests (kewiñales) are dominated by various species of this genus, which are distributed above 2,500 m of altitude, forming scattered patches in the middle of a landscape dominated by rural physiognomies.	FEP, FEM, FEY, FSP, FSM, FSY	FNM, FSec, CS	<a href="#">ID03_Andes_Bosque_GoogleEarth</a>	<a href="#">ID03_Andes_Bosque_Landsat</a>	<a href="#">ID03_Andes_Bosque_Paisaje_d1</a>
		Valles	Seasonal evergreen Polylepis forests of high-mountain Polylepis, distributed between 2,400-3,900 m of altitude.	FEP, FEM, FEY, FSP,	FNM	<a href="#">ID03_Valles_bosque_google_earth</a>	<a href="#">ID03_Valles_bosque_Landsat</a>	<a href="#">ID03_Valles_bosque_Paisaje</a>
		Tucumano-Boliviano	Forests that change in structure, composition and periodicity according to their altitudinal distribution in the tropical Andes (between 800 and 3,500 meters above sea level). Generally, below 2,000 m altitude it is semi-deciduous, with a tree canopy distributed between 15 and 20 m high, and emergent trees that reach just over 25 m. Above 2,000 m altitude the forests are humid and evergreen, thanks to the trade winds. The trees form a canopy distributed between 20 and 25 m high, with emergents reaching up to 30 m.	FEP, FEM, FEY, FSP,	FNM	<a href="#">ID03_Tucumano_Bosque_GoogleEarth</a>	<a href="#">ID03_Tucumano_Bosque_Landsat</a>	<a href="#">ID03_Tucumano_Bosque_Paisaje</a>
		Chaco	The Chaco forest is distributed in the south of the country and is generally deciduous, microfoliate and thorny. It has a shrubby tree canopy between 3 and 5 m high, with emergents that exceed 10 m, with the presence of columnar cacti being frequent. The Chaco forest develops on sediments of recent origin in well-drained red soils with rocky outcropping, characterized by hardwood trees, whose leaves are shed during the dry season.	FDP, FDM, FDY, FSP	FNM	<a href="#">ID03_Chaco_Bosque_GoogleEarth</a>	<a href="#">ID03_Chaco_Bosque_Landsat</a>	<a href="#">ID03_Chaco_Bosque_Paisaje</a>
		Chiquitano	The forests in this biome are characterized by the presence of numerous succulents, mostly thorny, the canopy is continuous and low with isolated emergent species, whose floristic composition and structure varies according to edaphic and topographic conditions. The medium-high semi-deciduous forest with trees between 15-25 m high, which form a complex mosaic with other ecoregions such as the Cerrado and the Flooded Savannahs.	FDP, FDM, FDY, FSP, FSM, FSY	FNM	<a href="#">ID03_Chiquitano_Bosque_GoogleEarth</a>	<a href="#">ID03_Chiquitano_Bosque_Landsat</a>	<a href="#">ID03_Chiquitano_Bosque_Paisaje</a>
	Pantanal	It has dense to semi-open forests and hydrophilic wooded savannas (6-10 m). They are characterized by being semi-deciduous rainfall. Low Chiquitano forests, Chiquitano forests transitional to the Pantanal, and subhumid forests with well-drained soils.	FEP, FSP	FNM	<a href="#">ID03_Pantanal_Bosque_GoogleEarth</a>	<a href="#">ID03_Pantanal_Bosque_Landsat</a>	<a href="#">ID03_Pantanal_Bosque_Paisaje</a>	
	1.2 Open forest	Amazonia, Chiquitano	Areas with natural vegetation made up of trees, shrubs or a mixture of both, with a coverage between 20 and 65%.	FMN,FM	FMN, FM	<a href="#">ID04_Bosque_Abierto_GoogleEarth</a>	<a href="#">ID04_Bosque_Abierto_Landsat</a>	<a href="#">ID04_Bosque_Abierto_Paisaje</a>
	1.3 Flooded forest	Amazonia	Amazonian flood forests, várzea forests and with a plant community that are usually flooded for approximately two months a year and igapó forests that are flooded for periods of five to six months, depending on the local geography. Amazon flood forest, várzea forests (flooded by white water, rich in sediments and minerals) and igapó forests (flooded by black water, rich in organic matter).	FEP, FEM, FEY, WW	FNM, FSec, CS	<a href="#">ID06_Amazonia_BosqueInundable_Google_Earth.png</a>	<a href="#">ID06_Amazonia_BosqueInundable_Landsat.png</a>	<a href="#">ID06_Amazonia_BosqueInundable_Paisaje.png</a>
		Chaco	Chaco forests that are usually flooded are found along the rivers, in the Chaco plain in the downstream landscape and the alluvial plains (old, Parapetí and flood), the soils are deep, moderate and well developed.	FDP, FDM, FDY, FSP, FSM, FSY	FNM	<a href="#">ID6_Chaco_google_earth</a>	<a href="#">ID6_Chaco_Landsat</a>	<a href="#">ID6_Chaco_Landsat</a>
		Chiquitano	It develops in the riverbed and floodplain of seasonal streams in the transition zone between the northeast of the Chaco and the Chiquitania and seasonally floodable forest by stagnant waters of the Chaco-Chiquitania transition. Low forest, with a dense canopy of 6-8 m. high, and emergent of 10-12 m, which develops in shallow depressions.	FEP, FSP	FNM, FSec, CS	<a href="#">ID06_Bosque_Inundable_Chiquitano_google_earth</a>	<a href="#">ID06_Bosque_Inundable_Chiquitano_Landsat</a>	<a href="#">ID06_Bosque_Inundable_Chiquitano_Paisaje</a>

<b>2. Non-forest natural formation</b>	2.1 Non-forest natural floodable formation	Amazonia	Vegetation cover located in the floodplain, such as grasslands and hydrophytic savannahs, which are flooded for a long period of the year. A group of deciduous forests that develop on clay or silty soils, with poor drainage seasonally flooded in river valleys, which are flooded for a long period of the year.	WW, OM	GNM, GM,	<a href="#">ID11_Amazonia_FNNF_Inundable_Google_Earth.png</a>	<a href="#">ID11_Amazonia_FNNF_Inundable_Landsat.png</a>	<a href="#">ID11_Amazonia_FNNF_Inundable_Paisaje.png</a>
		Andes	High Andean wetland of the xerophytic puna. They are located in topographic depressions, near bodies of water or melting phenomena, typical of high tropical mountains. Its shape is flat or in the form of cushioned cushions, it occurs at an altitude >3,000 m.a.s.l. High Andean wetland and Subnival of the Xerophytic Puna flooded by mineralized waters.	OM	GNM, GM,	<a href="#">ID11_FNNFI_Andes_Google_earth</a>	<a href="#">ID11_FNNFI_Andes_Landsat</a>	<a href="#">ID11_FNNFI_Andes_Paisaje</a>
		Valles	Areas with the presence of flat and/or padded wetlands of the humid puna, rainfall located near bodies of water. Aquatic vegetation in shallow waters.	OG	GNM, GM,	<a href="#">ID11_Valles_google_earth</a>	<a href="#">ID11_Valles_Landsat</a>	<a href="#">ID11_Valles_Paisaje</a>
		Tucumano-Boliviano	Floods are caused by the overflow of rivers that form mazamoras, creating a damming effect affecting vegetation and/or possible landslides. In some areas they generate soil moisture that is used by farmers to form cuts.	OG	GNM, GM,	<a href="#">ID11_Tucumano_google_earth</a>	<a href="#">ID11_Tucumano_Landsat</a>	<a href="#">ID11_Tucumano_Paisaje</a>
		Chaco	Floods are not very frequent, they occur every eight or ten years. The most affected areas are those located in the foothills, downhill and river slopes.	OG	GNM, GM,	<a href="#">ID11_FNNF_Chaco_Google_earth</a>	<a href="#">ID11_FNNF_Chaco_Landsat</a>	<a href="#">ID11_FNNF_Chaco_Paisaje</a>
		Chiquitano	Vegetation that develops on heavy, clayey or silty hydromorphic soils, with poor internal drainage to seasonally flooded, in alluvial plains and river valleys. Composed of hydrophytic savannas with mounds from the Cerrado in the Chiquitania (Pampas-termita mounds), distributed in the southern and eastern areas, which are temporarily flooded to varying degrees depending on the topography.	OM	GNM, GM	<a href="#">ID11_Chiquitano_FNNF_Inundable_Google_Earth.png</a>	<a href="#">ID11_Chiquitano_FNNF_Inundable_Landsat.png</a>	<a href="#">ID11_Chiquitano_FNNF_Inundable_Paisaje.png</a>
		Pantanal	Herbaceous vegetation with a predominance of grasses subject to permanent or temporary flooding (at least once a year) according to natural flood pulses. Swampy areas usually occur on the margins of temporary or permanent lakes occupied by emerging, submerged, or floating aquatic plants (e.g. curichis and swamps). Area of frequent and seasonal flooding (3-4 months). It has grassy vegetation, grasses and herbaceous savannahs.	OM	GNM, GM, GSec	<a href="#">ID11_Pantanal_FNNF_Inundable_Google_Earth.png</a>	<a href="#">ID11_Pantanal_FNNF_Inundable_Landsat.png</a>	<a href="#">ID11_Pantanal_FNNF_Inundable_Paisaje.png</a>
	2.2 Grassland	Amazonia	Savannas with grasses, sedges and scattered shrubs, closed savannas with high grasslands and on the tops of the mountains in areas with shallow soils. They are present in areas above >3,000 m.a.s.l. They appear in areas with shallow soils (mountain tops).	WG, OG, WS	GNM, GM, GSec	<a href="#">ID12_Amazonia_FormaciónCampestre_Google_Earth.png</a>	<a href="#">ID12_Amazonia_FormaciónCampestre_Landsat.png</a>	<a href="#">ID12_Amazonia_FormaciónCampestre_Paisaje.png</a>
		Andes	High Andean grasslands of the humid Puna distributed in different types of soils from humid to eroded. It occurs in areas >3,000 m.a.s.l. In the southern area grasslands and high Andean shrublands of the southern Xerophytic Puna. Areas with grasslands with camelid grazing.	WG, OG	GNM, GM, GSec	<a href="#">ID12_Andes_FormaciónCampestre_Google_Earth.png</a>	<a href="#">ID12_Andes_FormaciónCampestre_Landsat.png</a>	<a href="#">ID12_Andes_FormaciónCampestre_Paisaje.png</a>
		Valles	Areas with subhumid, montane and grassland shrub vegetation present greater than 65% and scattered tholar and shrubs	WG, OG	GNM, GM, GSec	<a href="#">ID12_Valles_Campestre_google_earth</a>	<a href="#">ID12_Valles_Campestre_Landsat</a>	<a href="#">ID12_Valles_Campestre_Paisaje</a>
		Tucumano-Boliviano	Shrubby grasslands and Bolivian-Tucumán montane rainfall scrublands. Bolivian-Tucumán montane subhumid grassland on well-drained soils. Xerophytic grasslands and shrubs; composed of open shrubs and grasslands (Pajonal de Ichu).	WG, OG, WS	GNM, GM, GSec	<a href="#">ID12_TucumanoBoliviano_FormaciónCampestre_Google_Earth.png</a>	<a href="#">ID12_TucumanoBoliviano_FormaciónCampestre_Landsat.png</a>	<a href="#">ID12_TucumanoBoliviano_FormaciónCampestre_Paisaje.png</a>
		Chaco	Se desarrolla en formaciones vegetales de climas extremadamente xéricos denominados sabana y que presentan elementos arbustivos y arbóreos que no se desarrollan, sobre una capa continua de hierbas y/o están dominadas por gramíneas.	WG, OG, OP	GNM, GM, GSec	<a href="#">ID12_Campestre_Chaco_Google_earth</a>	<a href="#">ID12_Campestre_Chaco_Landsat</a>	<a href="#">ID12_Campestre_Chaco_Paisaje</a>
		Chiquitano	Composed mainly of herbaceous species and open shrub savannahs. The grass-herbaceous stratum forms a continuous layer that generally does not exceed 1 m in height. Sclerophyllous chaparral and wooded savannas of the Chiquitania on well-drained soils	WG, OG, WS	GNM, GM, GSec	<a href="#">ID12_Chiquitano_FormaciónCampestre_Google_Earth.png</a>	<a href="#">ID12_Chiquitano_FormaciónCampestre_Landsat.png</a>	<a href="#">ID12_Chiquitano_FormaciónCampestre_Paisaje.png</a>
		Pantanal	Vegetation with a predominance of herbaceous strata, with the presence of isolated shrubs and stunted woody trees. The botanical composition is influenced by edaphic and topographic gradients.	WG, OG, OX	GNM, GM, GSec	<a href="#">ID12_Pantanal_FormaciónCampestre_Google_Earth.png</a>	<a href="#">ID12_Pantanal_FormaciónCampestre_Landsat.png</a>	<a href="#">ID12_Pantanal_FormaciónCampestre_Paisaje.png</a>
	2.3 Rocky Outcrop	Amazonia	There are rocky outcrops that correspond to the Paleozoic, normally this class presents consolidated rock, outcrops and rocky sediments dragged mainly by ice. However, there are inclusions where there is colluvial accumulation of soil, developing under conditions of very low temperature and good humidity that is more frequently found in the upper part (middle mountains).	OX	O	<a href="#">ID29_AfloramientoRocoso_Amazonia_google_earthxx</a>	<a href="#">ID29_AfloramientoRocoso_Amazonia_Landsat</a>	<a href="#">ID29_AfloramientoRocoso_Amazonia_Paisaje</a>
		Andes, Valles	Areas formed mainly by exposed rocks with little or no vegetation that can be saxicolous and/or rocky. It is located in areas with slopes.	OX	O	<a href="#">ID29_Andes_Afloramiento_rocoso_GoogleEarth</a>	<a href="#">ID29_Andes_Afloramiento_rocoso_Landsat</a>	<a href="#">ID29_Afloramiento_rocoso_Paisaje</a>
		Chiquitano	It has surfaces with rocky outcrops or steep slopes that are very stony. The undulating and strongly eroded terrain (Serranía de Santiago de Chiquitos), has been formed from various granitic and metamorphic rocks.	OX	S	<a href="#">ID29_Chiquitano_Google_earth</a>	<a href="#">ID29_Chiquitano_Landsat</a>	<a href="#">ID29_Chiquitano_Paisaje</a>
		Tucumano-Boliviano	Areas with little or no vegetation, present in undulating and heavily eroded terrain, have been formed from various granitic and metamorphic rocks. May include exposed rock.	OX	S	<a href="#">D29_Tucumano_Afloramiento_google</a>	<a href="#">D29_Tucumano_Afloramiento_imagem</a>	<a href="#">D29_Tucumano_Afloramiento_Paisaje</a>

	2.4 Scrub	Amazonia, Andes, Valles y Tucumano-Boliviano	Areas made up of several communities of open and/or semi-enclosed low shrubs (tholars); reaching a height between 1-1.5m. They develop on piedmont surfaces, flat topographies and/or fluvial terraces.	WS, WG	GNM	<a href="#">ID66_Matorral_GoogleEarth</a>	<a href="#">ID66_Matorral_Landsat</a>	<a href="#">ID66_Matorral_Paisaje</a>
	2.5 Other non-forest natural formation	Amazonia	Shrubs, chaparral trees present in the upper Amazon region, with several altitudinal levels and different types of evergreen vegetation, generally <3,000 m. a.s.l.	WS, WG, OG	GNM	<a href="#">ID13_Amazonia_OtraFNNF_Google_Earth.png</a>	<a href="#">ID13_Amazonia_OtraFNNF_Landsat.png</a>	<a href="#">ID13_Amazonia_OtraFNNF_Paisaje.png</a>
		Andes	In this region, the dominant physiognomy corresponds to shrubs or shrubs which generally grow below 3,000 m of altitude. Highland shrublands and grasslands of the Puna and Xerophytic Altiplano on well-drained soils with fallow land and extensive meadows. It is mainly made up of xeromorphic shrubs with grasses and cacti.	WS, WG	GNM	<a href="#">ID13_Andes_OtraFNNF_GoogleEarth</a>	<a href="#">ID13_Andes_OtraFNNF_Landsat</a>	<a href="#">ID13_Andes_OtraFNNF_Paisaje</a>
		Valles	Areas made up of several communities of low shrubs, closed and scattered chaparrals.	WG, OG	GNM	<a href="#">ID13_Valles_OtraFNNF_GoogleEarth</a>	<a href="#">ID13_Valles_OtraFNNF_Landsat</a>	<a href="#">ID13_Valles_OtraFNNF_Paisaje</a>
		Tucumano-Boliviano	It has mixed vegetation of grassland with the presence of shrubs or small shrubs and saxicolous vegetation of the highlands. They are distributed above 2,800 – 3,000 m on the summits of the Bolivian-Tucumán mountain ranges and/or areas with shallow soils.	WS, WG, OG	GNM	<a href="#">ID13_Tucumano_OtraFNNF_GoogleEarth</a>	<a href="#">ID13_Tucumano_OtraFNNF_Landsat</a>	<a href="#">ID13_Tucumano_OtraFNNF_Paisaje</a>
		Chaco	It is made up of chaparral trees in very sandy soils, where the sands have covered the soil with silty and clayey sediments, deposited in the old alluvial plains. Wooded savannas of the sandbanks of the Chaco.	WG, OG	GNM	<a href="#">ID13_Chaco_OtraFNNF_GoogleEarth</a>	<a href="#">ID13_Chaco_OtraFNNF_Landsat</a>	<a href="#">ID13_Chaco_OtraFNNF_Paisaje_dl</a>
		Chiquitano, Pantanal	They are floristically made up of the chaparral of the Abayoy, which mostly includes large elements of the Cerrado, followed by some floristic components of the Gran Chaco, characterized by its sandy soils. In addition, it has shrubs, shrubs and low forests with frequent thorny bromeliads, cacti and xeromorphic ferns.	WS, WG, OG	GNM	<a href="#">ID13_Chiquitano_OtraFNNF_GoogleEarth</a>	<a href="#">ID13_Chiquitano_OtraFNNF_Landsat</a>	<a href="#">ID13_Chiquitano_OtraFNNF_Paisaje</a>
	3.1 Pasture	Amazonia	This coverage includes lands occupied by natural pastures where livestock management practices are evident and in addition to cultivated pastures (Brachiarias, Festuca, fodder sorghum, etc.) for livestock. Planted grasses or perennial forage food last 4, 5 or more years, keeping the soil covered all year round.	OP, OM, OG	Ap	<a href="#">Id15_Amazonia_Pasto_GoogleEarth</a>	<a href="#">Id15_Amazonia_Pasto_Landsat</a>	<a href="#">Id15_Amazonia_Pasto_Paisaje</a>
		Andes	In the Andean Puna (> 4,000 meters above sea level), cattle ranching is carried out in natural pastures, which make use of ancestral practices adapted to their production objectives and the harsh natural environment, sheep, goat, and cattle farming. It also has some cultivated pastures (Alfalfa, clover, sheep grass, oats, barley, etc.). It presents geometric patterns as an effect of the parceling of the properties.	OP, OG	Ap	<a href="#">Id15_Andes_Pasto_GoogleEarth</a>	<a href="#">Id15_Andes_Pasto_Landsat</a>	<a href="#">Id15_Andes_Pasto_Paisaje</a>
		Valles, Tucumano-Boliviano	Livestock breeding is practiced under an extensive production system, where management is family and following traditional systems. A grazing rotation is practiced, where in the high and less humid areas grazing in the rainy season and the lower areas in the dry season. This activity is generally carried out on communal properties, in the forest or meadows. The arrangement of cultivated pastures is generally in small to medium-sized plots.	OP, OG	Ap	<a href="#">Id15_Valles_Pasto_GoogleEarth</a> <a href="#">Id15_Tucumano-Boliviano_Pasto_GoogleEarth</a>	<a href="#">Id15_Valles_Pasto_Landsat</a> <a href="#">Id15_Tucumano-Boliviano_Pasto_Landsat</a>	<a href="#">Id15_Valles_Pasto_Paisaje</a> <a href="#">Id15_Tucumano-Boliviano_Pasto_Paisaje</a>
		Chaco	In the Bolivian Chaco, a new form of livestock exploitation is being implemented, characterized by semi-intensive management, called "sustainable community livestock" or new livestock, in communities where the sustainable and rational use of the forest and water are its main pillars, this accompanied by rigorous management of the cattle herd. It is characterized by the construction of cut-offs to provide water to the cattle due to the scarcity of fodder and water in the dry season. It also presents cultivated pastures such as (fescue, brachiaria, ryegrass, etc.)	OP, OG	Ap	<a href="#">Id15_Chaco_Pasto_GoogleEarth</a>	<a href="#">Id15_Chaco_Pasto_Landsat</a>	<a href="#">Id15_Chaco_Pasto_Paisaje</a>
		Chiquitano	The Chiquitano biome is historically a territory with a semi-extensive livestock or livestock vocation, this area is characterized by having sown pastures and to a lesser extent natural. Livestock rotation is practiced due to the lack of water. It is currently an important area for the export of beef to international markets and domestic consumption.	OP, OG	Ap	<a href="#">Id15_Chiquitano_Pasto_GoogleEarth</a>	<a href="#">Id15_Chiquitano_Pasto_Landsat</a>	<a href="#">Id15_Chiquitano_Pasto_Paisaje</a>
		Pantanal	Cultivated pastures (brachiarias, fescue, ryegrass, etc.) and natural pastures, for cattle feed. The sown pastures are perennial and last 4 to 5 years.	OM	Ap	<a href="#">Id15_Pantanal_Pasto_GoogleEarth</a>	<a href="#">Id15_Pantanal_Pasto_Landsat</a>	<a href="#">Id15_Pantanal_Pasto_Paisaje</a>
	Amazonia	Amazonia	Areas where the original cover has been modified or replaced by annual, temporary, and perennial crops. Agricultural production is basically developed for domestic consumption and is concentrated in the cultivation of rice, cocoa, sugarcane, beans, corn, bananas, papaya, fruit trees (citrus) and cassava. The variation of altitudinal levels and climates generates a diversity of crops.	OCA, OCP, OCM	AC, S	<a href="#">Id18_Amazonia_Agricultura_GoogleEarth</a>	<a href="#">Id18_Amazonia_Agricultura_Landsat</a>	<a href="#">Id18_Amazonia_Agricultura_Paisaje</a>
		Andes	Transitional crops are located in occupied areas with crops whose vegetative cycle is less than a year, even reaching only a few months with the characteristic that after harvest it is necessary to replant or plant to continue producing. Some crops that are planted are fruit trees (citrus), coffee, coca crops, tubers (potato, oca, walusa), quinoa, beans, among others.	OX, OCM, OF	AC, S	<a href="#">Id18_Andes_Agricultura_GoogleEarth</a>	<a href="#">Id18_Andes_Agricultura_Landsat</a>	<a href="#">Id18_Andes_Agricultura_Paisaje</a>
			Agricultural production is carried out through agroforestry systems with products such as grapes, peaches, apples, etc. These crops are generally located	OCA, OW, OF	AC, S	<a href="#">Id18_Valles_Agricultura_GoogleEarth</a>	<a href="#">Id18_Valles_Agricultura_Landsat</a>	<a href="#">Id18_Valles_Agricultura_Paisaje</a>

3. Agriculture	3.2 Agriculture	Valles, Tucumano-Boliviano	products such as grapes, peaches, apples, etc. These crops are generally located in valleys. The "territory" approach is used to carry out traditional crops aimed at the production of cereals, beans, peas, corn and rainfed vegetables and irrigation for self-consumption, as well as the cultivation of vegetables, tubers, cereals and fruit trees for marketing.			<a href="#">Id18_Tucumano-Boliviano_GoogleEarth</a>	<a href="#">Id18_Tucumano-Boliviano_Landsat</a>	<a href="#">Id18_Tucumano-Boliviano_Paisaje</a>
		Chaco	The Guarani indigenous communities mainly grow corn, kumanda, peanuts, and various vegetables, considering the aridity of the region and the effects of climate change, certain practices have been generated that seek the sustainability of their life in this arid region of the Chaco and ensure their agricultural production. Genetically modified soybeans and corn have the characteristic that they are resistant to drought, as well as the sunflower, the secret that allowed cultivation on these lands.	OF, OCA	AC, S	<a href="#">Id18_Chaco_Agricultura_GoogleEarth</a>	<a href="#">Id18_Chaco_Agricultura_Landsat</a>	<a href="#">Id18_Chaco_Agricultura_Paisaje</a>
		Chiquitano	Taking into account the coverage of the type of forest and the burned areas reported in recent years, it can be said that the expansion of the agricultural frontier is significant, mainly for the cultivation of large areas of soybeans in summer, and in winter sunflower, sorghum, wheat, corn, rice and chia crops predominate. Crops with a smaller area are cassava, beans, plantains, bananas and citrus fruits.	OCM, OF, OP	AC, S	<a href="#">Id18_Chiquitano_Agricultura_GoogleEarth</a>	<a href="#">Id18_Chiquitano_Agricultura_Landsat</a>	<a href="#">Id18_Chiquitano_Agricultura_Paisaje</a>
		Tucumano-Boliviano	Agricultural production is carried out through agroforestry systems with products such as grapes, peaches, apples, etc. These crops are generally located in valleys. The "territory" approach is used to carry out traditional crops aimed at the production of cereals, beans, peas, corn and rainfed vegetables and irrigation for self-consumption, as well as the cultivation of vegetables, tubers, cereals and fruit trees for marketing.	OCA, OW, OF	AC, S	<a href="#">Id18_Tucumano-Boliviano_Agricultura_GoogleEarth</a>	<a href="#">Id18_Tucumano-Boliviano_Agricultura_Landsat</a>	<a href="#">Id18_Tucumano-Boliviano_Agricultura_Paisaje</a>
	3.3 Mosaic of uses	Amazonía	In the Upper Amazon region, it includes small-scale agriculture, as well as perennial crops of coca, coffee, and citrus. In the Lower Amazon region, mechanized agriculture is practiced, mainly in the north of the department of Santa Cruz. However, in recent years, livestock activities have been increasing, causing the replacement of extensive natural areas by introduced pastures.	OCA, OCM, OP, OG	AC, S	<a href="#">ID21_Amazonia_Mosaico de Usos Google Earth</a>	<a href="#">ID21_Amazonia_Mosaico de Usos imagen</a>	<a href="#">ID21_Amazonia_Mosaico de usos Paisajes</a>
		Andes	Livestock (cattle, sheep, goats and camelids), small-scale agriculture, e.g. quinoa (Chenopodium quinoa) and mechanized agriculture with crops of vegetables, potatoes, maize, alfalfa, barley, oca, beans, quinoa, oats, wheat, etc.	OCA, OCM, OP, OG	AC, S	<a href="#">ID21_Andes_Mosaico de Usos Google Earth</a>	<a href="#">ID21_Andes_Mosaico de Usos Imagen</a>	<a href="#">ID21_Amazonia_Mosaico de Usos paisaje</a>
		Valles, Tucumano-Boliviano	Cattle browsing, selective extraction of species with forest value, and small-scale agricultural activities. Corn, wheat, soybean and vegetable crops.	OCA, OCM, OP, OG	AC, S	<a href="#">ID21_Tucumano-Boliviano_Mosaico de Usos Google Earth</a>	<a href="#">ID21_Tucumano-Boliviano_Mosaico de Usos Imagen</a>	<a href="#">ID21_Tucumano-Boliviano_Mosaico de Usos Paisajes</a>
		Chaco	Se practica la siembra escalonada en sus cultivos de maíz, con esto se logra asegurar la germinación y brote de las plantas aprovechando la disponibilidad de humedad en el suelo luego de las lluvias, con lo que se logra optimizar el uso de sus tierras y la mano de obra, además de asegurar mejores rendimientos. Otra actividad importante es la crianza de bovinos criollos, el monte chaqueño es extenso pero escaso en recursos hídricos, junto a la disponibilidad de forraje, por lo que se ha implementado el manejo de producción de pasto y con esto se posibilita la producción de forraje que logra abastecer la alimentación en los meses más críticos. Ganadería semi-intensiva y extensiva de base comunitaria. Cultivos de maíz, trigo y soya tanto en la temporada de invierno y verano.	OCA, OCM, OP, OG	AC, S	<a href="#">ID21_Chaco_Mosaico de Usos Google Earth</a>	<a href="#">ID21_Chaco_Mosaico de Usos Imagen</a>	<a href="#">ID21_Chaco_Mosaico de Usos Paisaje</a>
		Chiquitano	Cattle ranching, vegetable fuel extraction (firewood and charcoal production), small-scale agriculture (peasant communities) and large-scale agriculture (agricultural enterprises and Mennonite colonies). Chiquitana intensive livestock. Rice, cassava, peanut crops, among others.	OCA, OCM, OP, OG	AC, S	<a href="#">ID21_Chiquitano_Mosaico de Usos Google Earth</a>	<a href="#">ID21_Chiquitano_Mosaico de Usos Imagen</a>	<a href="#">ID21_Chiquitano_Mosaico de Usos Paisaje</a>
		Pantanal	Livestock activity and pastures cultivated for their consumption predominate. The pastures, being perennial, last 4 to 5 years, keep the soil covered and take advantage of cuts and regrowth. The implementation of agriculture with small-scale crops is observed, mainly due to its moderate fertility for agriculture. In addition, you have areas that are very prone to flooding, which is not suitable for many crops.	OP, OG	AC, S	<a href="#">ID21_Pantanal_Mosaico de Usos Google Earth</a>	<a href="#">ID21_Pantanal_Mosaico de Usos Imagen</a>	<a href="#">ID21_Pantanal_Mosaico de Usos Paisaje</a>
4.1 Beach, dune or sandbanks	Amazonía, Chiquitania	Areas with the presence of sandy cover or no vegetation that is transported by rivers and deposited in the eastern plains forming sandbanks.	OX	O	<a href="#">ID23_Playas_dunas_GoogleEarth</a>	<a href="#">ID23_Playas_dunas_Landsat</a>	<a href="#">ID23_Playas_dunas_Paisaje</a>	
	Andes, Valles, Chaco y Tucumano-Boliviano	These regions are characterized by periodic obstruction of the river drainage by the sediments of the river itself. In addition, seasonally the causes of secondary rivers dry up forming beaches or sandbanks.	OX	S	<a href="#">ID23_Andes_Google_earth</a> <a href="#">ID23_Chaco_google_earth</a>	<a href="#">ID23_Andes_Landsat</a> <a href="#">ID23_Chaco_Landsat</a>	<a href="#">ID23_Andes_Paisaje</a> <a href="#">ID23_Chaco_Paisaje</a>	
	Amazonía, Andes, Valles, Chaco, Chiquitano, Tucumano-Boliviano, Pantanal	Urban infrastructure is understood to include all the networks of services and road structuring necessary for the establishment of urban facilities and housing, whose urban characteristics are: road structuring, predominant built limits, typologies of urban fabric of the different areas, structuring of the networks of equipment and public service, which in short allow the understanding of the "urban form" to describe its conformation, type of layout, built density and etc. Area covered by urban infrastructure, with human settlements of more than 1,000 inhabitants.	OB	S	<a href="#">ID_24_Infraestructura Urbana Google Earth</a>	<a href="#">ID_24_Infraestructura Urbana imagen</a>	<a href="#">ID_24_Infraestructura Urbana Paisaje</a>	

<b>4. Area without vegetation</b>	4.3 Mining	Amazonia	In Bolivia there are two types of open-pit and alluvial mining. The mining present in underground and/or open-pit mining is characterized by the fact that the mineral extracted in both cases is taken to treatment or concentration plants, mechanical or explosive means are also used to remove the soil that covers or surrounds the geological formation that forms the deposit, or bank of materials. Gold/alluvial mining includes both the exploitation of primary and secondary deposits, at present, exploitation is mainly focused on the basins of the Tipuani and K'aka rivers (Amazon), where deposits are exploited in ancient riverbeds or on platforms and terraces of recent rivers.	OQ	Min	<a href="#">ID30_Amazonia_Mineria_Google_Earth</a>	<a href="#">ID30_Amazonia_Mineria_Imagen</a>	<a href="#">ID30_Amazonia_Mineria_Paisaje</a>
		Andes, Valles	Mining activity has been going on since colonial times, as such, when silver deposits were discovered in Potosí. After the exploitation of silver, the mining of tin, wolfram, antimony, zinc and some copper was developed. They are deposits and the exploitation method used is open pit, water being a strategic resource for mining activity, which needs to maximize the supply of water for this activity because it is a limited resource in this biome.	OQ	Min	<a href="#">ID30_Andes_GoogleEarth</a>	<a href="#">ID30_Andes_Landsat</a>	<a href="#">ID30_Andes_Paisaje</a>
		Chiquitano	Mineral extraction areas, with clear soil exposure. Generally artisanal or illegal.	OQ	Min	<a href="#">ID30_Mineria_Chiquitano_Google_earth</a>	<a href="#">ID30_Mineria_Chiquitano_Landsat</a>	<a href="#">ID30_Mineria_Chiquitano_Paisaje</a>
	4.4 Another natural area without vegetation	Amazonía, Andes, Valles, Chaco, Chiquitano, Tucumano-Boliviano, Pantanal	Mining activity has been going on since colonial times, as such, when silver deposits were discovered in Potosí. After the exploitation of silver, the mining of tin, wolfram, antimony, zinc and some copper was developed. They are deposits and the exploitation method used is open pit, water being a strategic resource for mining activity, which needs to maximize the supply of water for this activity because it is a limited resource in this biome.	OX	S	<a href="#">ID68_Andes_Valles_GoogleEarth</a> <a href="#">ID68_Valles_GoogleEarth</a>	<a href="#">ID68_Andes_Valles_Landsat</a> <a href="#">ID68_Valles_Landsat</a>	<a href="#">ID68_Andes_Valles_Paisaje</a> <a href="#">ID68_Valles_Paisaje</a>
	4.5 Another anthropic area without vegetation	Amazonía, Andes, Valles, Chaco, Chiquitano, Tucumano-Boliviano, Pantanal	Crop transition areas, roads and highways, airstrips, industrial yards, and areas of recent deforestation.	OX	S	<a href="#">ID_25_Amazonia_Otra_area_sin_vegetacion_google_earth</a>	<a href="#">ID_25_Otra_Amazonia_Otra_area_sin_vegetación_imagen</a>	<a href="#">ID_25_Otra_Amazonia_Otra_area_sin_vegetación_Paisaje</a>
4.6 Salar	Andes	Salt desert at an altitude of 3,650 m.a.s.l. The Salar de Uyuni and Coipasa stand out. Brackish grasslands of the central high Andes. During the rainy season, the water can flood part of the salt flat and give it an impressive appearance, like a mirror, that water mirror can remain for longer than usual in other years, due to the abundant rainfall. Discoloration of water and saline is also observed, which could be due to a combination of runoff, volcanic sediments, and microbes or algae proliferating in the water.	OX	O	<a href="#">ID61_Andes_salar_Google_Earth</a>	<a href="#">ID61_Andes_salar_imagen</a>	<a href="#">ID61_Andes_salar_Paisaje</a>	
<b>5. Water body</b>	5.1 River or lake	Amazonia, Andes, Valles, Chaco, Chiquitano, Tucumano-Boliviano, Pantanal	Extension of natural or artificial surface water. It includes rivers, lakes, reservoirs and other bodies of water. Permanent rivers and perennial lagoon. In the Andes, despite the adverse climatic conditions, the region shows surface water bodies such as: low-flow rivers, in the form of rows, lagoons, fresh and salt lakes. In Chaco and Tucumano-Boliviano, seasonally dry rivers. In the Pantanal Flood areas with large aquifers	IRP, IRS, IL, ID, IP	A, Res	<a href="#">ID33_Rio_o_Lago_Amazonia_Google_Earth</a> <a href="#">ID33_Rio_o_Lago_Andes_Google_Earth</a> <a href="#">ID33_Rio_o_Lago_Chaco_Google_Earth</a> <a href="#">ID33_Rio_o_Lago_Chiquitano_Google_Earth</a> <a href="#">ID33_Rio_o_Lago_Tucumano_Google_Earth</a> <a href="#">ID33_Rio_o_Lago_Pantanal_Google_Earth</a>	<a href="#">ID33_Rio_o_Lago_Amazonia_imagen</a> <a href="#">ID33_Rio_o_Lago_Andes_Imagen</a> <a href="#">ID33_Rio_o_Lago_Chaco_Imagen</a> <a href="#">ID33_Rio_o_Lago_Chiquitano_Imagen</a> <a href="#">ID33_Rio_o_Lago_Tucumano_Imagen</a> <a href="#">ID33_Rio_o_Lago_Pantanal_Imagen</a>	<a href="#">ID33_Rio_o_Lago_Amazonia_paisaje</a> <a href="#">ID33_Rio_o_Lago_Andes_Paisaje</a> <a href="#">ID33_Rio_o_Lago_Chaco_Paisaje</a> <a href="#">ID33_Rio_o_Lago_Chiquitano_Paisaje</a> <a href="#">ID33_Rio_o_Lago_Tucumano_Paisaje</a> <a href="#">ID33_Rio_o_Lago_Pantanal_Paisaje</a>
	5.2 Glacier	Andes	A permanent ice cover area or mass, located on the Andean peaks, as a result of the accumulation, compaction and recrystallization of snow. Cordillera Real in the Andes, Nevado Sajama, Nevado Ulla Khaya.		O	<a href="#">ID34_Andes_Glaciars_Google_Earth</a>	<a href="#">ID34_Andes_Glaciars_imagen</a>	<a href="#">ID34_Andes_Glaciars_paisaje</a>
<b>6. Not Observed</b>			Areas that could not be identified in their classes due to the presence of clouds, cloud shadow, atmospheric noise or quality of satellite images. Atmosférica					