

					Land cover		Imágenes Landsat			
Level 1	Level 2	Biome	Description	FAO Classes	(IPCC)	False color combination RGB 654	False color combination RGB 564	False color combination RGB 764	Natural color	Landscape
		Amazon	Natural cover with a predominance of dense, evergreen vegetation of arboreal habit, with the presence of some natural palm communities, which together form a more or less irregular high stratum that exceeds 15 m in height. It is located in areas that do not present periodic flooding processes and have not been intervened or have a slight degree of intervention. It includes primary, secondary, riparian and gallery forests on the mainland, secondary vegetation in an advanced stage of succession. (IDEAM, 2010, IDEAM, IGAC e Instituto Humboldt, 2017).			■ ILV-C1-ID03-AM.png	■ ILR-C1-ID03-AM.png	■ ILB-C1-ID03-AM.png	GE-C5-ID3-AM	<u>P-C5-ID3-AM</u>
		Andes	Natural areas made up of a vegetation community dominated by trees or shrubs, with the presence of some palms, which form a dense and continuous canopy with a height of more than 5 meters. These coverages have not been intervened or have been selectively intervened. It includes basal and montane dense terra firme forests, riparian forests, some dense shrublands and secondary vegetation in an advanced state of succession, where part of its structural attributes have already been recovered. Within this coverage is the tropical dry forest of the Magdalena Valley, the sub-Andean, Andean and high Andean forest of the Cordillera, which in turn includes natural oak forests, and the tropical dry forest of the Magdalena Valley. (Cortés, Camacho & Matoma, 2020; IDEAM, 2010; IDEAM, IGAC e Instituto Humboldt, 2017).	FSP, FSM, FSY		■ ILV-C1-ID03-AN.png	■ ILR-C1-ID03-AN.png	■ ILB-C1-ID03-AN.png	GE-C1-ID3-AN	<u>P-C1-ID3-AN</u>
	Forest	Caribbean	Correspond to natural areas with a predominance of arboreal or shrubby elements that form a more or less continuous canopy with a height of more than 5 m. They include dense terra firme forests, dense shrublands, riparian and gallery forests, and secondary vegetation in an advanced state of succession, where part of their structural attributes have already been recovered. In the Caribbean region there are different types of forests depending on the altitudinal gradient and climatic conditions, such as the tropical rainforest of the Magdalena Medio, characterized by a high stratum and continuous canopy with evergreen vegetation; the tropical dry forest of the Caribbean Plain, which is subject to periods of drought and extreme temperatures and has thorny deciduous vegetation; and the montane forests of the Serranía del Perijá and the Sierra Nevada de Santa Marta. (IDEAM, 2010,IDEAM, IGAC e Instituto Humboldt, 2017)		FNM, FM, FSec, CS	■ ILV-C1-ID03-CA.png	■ ILR-C1-ID03-CA.png	■ ILB-C1-ID03-CA.png	GE-C1-ID3-CA	P-C1-ID3-CA
		Orinoco	Natural land cover consisting mainly of arboreal elements, with the presence of some natural palm associations, which form a more or less regular canopy of more than 5 m in height. In a large part of the region, this cover is found bordering the natural savannas of the Orinoco, following the course of rivers and natural drainages. It includes terra firme gallery forests, low and high dense forests, secondary vegetation in an advanced state of succession, where part of its attributes have already been recovered.(IDEAM, 2010, IDEAM, IGAC e Instituto Humboldt, 2017)			■ ILV-C1-ID03-OR.png	■ ILR-C1-ID03-OR.png	■ ILB-C1-ID03-OR.png	GE-C1-ID3-OR	<u>P-C1-ID3-OR</u>
		Pacific	These are natural areas dominated by dense evergreen vegetation of arboreal habit, with the presence of some natural palm communities, which form a more or less irregular high stratum that exceeds 15 m in height. It is located in areas that do not present periodic flooding processes and have not been intervened or have a slight degree of intervention. It includes primary, secondary, riparian and gallery forests on the mainland, secondary vegetation in an advanced stage of succession. (IDEAM, 2010, IDEAM, IGAC e Instituto Humboldt, 2017).			■ ILV-C1-ID03-PA.png	■ ILR-C1-ID03-PA.png	■ ILB-C1-ID03-PA.png	GE-C1-ID3-PA	<u>P-C1-ID3-PA</u>
Forest formation		Caribbean	Natural formation of dense, evergreen forests located on the coastlines. They grow on flat, muddy soils that may be permanently or seasonally flooded due to tides. They are found in estuarine zones, bays, inlets and coastal lagoons, among others, where they receive the contributions of continental runoff waters and the influence of marine or brackish waters. (Murcia & Castillo, 2018)			■ ILV-C1-ID5-CA.png	■ ILR-C1-ID5-CA.png	■ ILB-C1-ID5-CA.png	GE-C1-ID5-C A.png	P-C1-ID5-CA



	Level 2				Land cover		Imágenes Landsat			
Level 1	Level 2	Biome	Description	FAO Classes	(IPCC)	False color combination RGB 654	False color combination RGB 564	False color combination RGB 764	Natural color	Landscape
	Mangrove	Pacific	Forests of arboreal and shrub strata located on the coasts and where the tide penetrates towards the continent. They are characterized by the influence of brackish waters, saturated soils with poor drainage and a low rate of decomposition of organic matter. In the Pacific, the high rainfall keeps salinity levels lower, compared to the mangroves of the Caribbean coast. They are distributed from the limits with Panama to the south on the border with Ecuador, forming a strip along the coast, at the mouths of rivers such as Baudó, Dagua, Limones, Yurumanguí, Timbiquí, Guapi, Iscuandé, Satinga and San Juan, among others, also in coves and in the bays of Málaga and Buenaventura. (Villalba, 2006).	FEP, FEM, FEY, WW	FNM, FSec	■ ILV-C1-ID5-PA.png	■ ILR-C1-ID5-PA.png	■ ILB-C1-ID5-PA.png	<u>GE-C1-ID5-PA</u>	<u>P-C1-ID5-PA</u>
		Amazon	Forest cover with a canopy height greater than 5 m, present in areas near or adjacent to bodies of water, characterized by plant species that support seasonally (4-8 months per year) or permanently flooded conditions, with moisture in the soil during most of the year. They are generally found in the floodplains of valleys and alluvial plains.			■ ILV-C1-ID6-AM.png	■ ILR-C1-ID6-AM.png	■ ILB-C1-ID6-AM.png	GE-C5-ID6-AM	P-C5-ID6-AM
		Andes	Forest cover present on riverbanks, comprising vegetation in different strata, highlighting the formation of woody tree plants, high Poaceae (Guadua) or palms with heights from 3 meters and upwards and considerable density to be natural forest, this is characterized by settling on the banks of temporary or permanent rivers which limits its amplitude to a strip no more than 50 m from the riverbed.	FEP, FEM, FEY, WW		■ ILV-C2-ID6-AN.png	■ ILR-C2-ID6-AN.png	■ ILR-C2-ID6-AN.png	GE-C2-ID6-A N.png	P-COL1-ID31- AN.jpg
	Floodable forest	Caribbean	Flooded forests are forest cover present on riverbanks, this includes vegetation in different strata, highlighting the formation of woody or arboreal plants with heights from 3 meters onwards, this is characterized by being established on the banks of temporary or permanent rivers, due to its uneven terrain this formation is also known as gallery forests, although it does not imply that all gallery forests are.		FNM, FM, Fsec	■ ILV-C1-ID6-CA.png	■ ILR-C1-ID6-CA.png	■ ILB-C1-ID6-CA.png	GE-C1-ID6-C A.png	P-C1-ID6-CA
		Orinoco	Cover present in most of the riverbanks, where tree vegetation can be observed with a height of more than 3 meters, it is characterized by being established near the riverbeds and streams. These are known as gallery forests, although it does not imply that all gallery forests are floodable, in the same way, plant associations such as morichales can be found within these floodable formations.			■ ILV-C1-ID6-OR.png	■ ILR-C1-ID6-OR.png	■ ILB-C1-ID6-OR.png	GE-C1-ID6-OR	<u>P-C1-ID6-OR</u>
		Pacific	Floodable forests are forest cover present on the banks of rivers, this includes vegetation in different strata, highlighting the formation of woody or arboreal plants with heights from 3 meters onwards, this is characterized by being established on the banks of temporary or permanent rivers, Due to its slightly rugged orography, this formation is also known as gallery forests, although this does not imply that all gallery forests are floodable. Likewise, in the Colombian Pacific, floodable formations can be found such as the sajales and the guandales, which are coeval species that subsist under these edaphic conditions of high flooding.			■ ILV-C1-ID6-PA.png	■ ILR-C1-ID6-PA.png	■ ILB-C1-ID6-PA.png	GE-C1-ID6-P A.png	<u>P-C1-ID6-PA</u>
	Wooded sandbank vegetation	Caribbean	Wooded formations (subxerophytic) located below 800 meters above sea level in sandy soils, mainly comprising the very dry and arid xerophytic ecosystems of the Guajira in temperature ranges that exceed 24°C, characterized by its sclerophyllous vegetation of hard and deciduous leaves. (MEC,2017) (IDEAM,2010)	FDP, FDM, FDY, WS	FNM, O	■ ILV-C1-ID49-CA.png	■ ILR-C1-ID49-CA.png	■ ILB-C1-ID49-CA.png	GE-C1-ID50-CA	<u>P-C1-ID50-CA</u>



117	112		Description		Land cover		Imágenes Landsat	Natural color	
Level 1	Level 2	Biome	Description	FAO Classes	(IPCC)	False color combination RGB 654	False color False color combination RGB 564	Natural color	Landscape
	Wetland	Amazon	Natural herbaceous vegetation (coverage greater than 70%) or shrubs (coverage between 30 and 50%), on permanently oversaturated hydromorphic soils, which during rainy periods (4-8 months per year) may be covered by a sheet of water. It can present some arboreal elements in the form of patches or "matas de monte" and areas with communities of palms or "morichales", dispersed, that in no case exceed 10%. They are generally found in the floodplains of the valleys and alluvial plains.			■ ILV-C1-ID11-AM.png	■ ILR-C1-ID11-AM.png	GE-C5-ID11-AM	<u>P-C5-ID11-AM</u>
		Andes	In the Andes region, this cover is found in low, spongy, marshy soils whose soil is composed mainly of mosses and decomposed plant matter (commonly called peat bogs) above 3,200 meters above sea level. It also includes herbaceous vegetation established in marshy areas near bodies of water, and those natural plant species that partially or totally cover the water surface, as in the case of Andean lakes and lagoons in the process of eutrophication. (IDEAM,2010)			■ ILV-C1-ID11-AN.png	■ ILR-C1-ID11-AN.png	GE-C1-ID11-AN	P-C1-ID11-AN
	Wetland	Caribbean	This type of cover is found in low coastal areas covered by herbaceous and, to a lesser extent, shrub vegetation adapted to brackish environments, which are under the influence of the tide. Also in areas associated with river deltas, estuaries, marshes, coastal lagoons and marine flood plains. They are characterized by being subject to periods of flooding (IDEAM,2010).	WW, OM, WG	A	■ ILV-C1-ID11-CA.png	■ ILR-C1-ID11-CA.png	GE-C1-ID11-CA	P-CA-ID11-CA
		Orinoco	Herbaceous vegetation, mostly grasses, subject to permanent or temporary flooding (at least once a year) according to natural flood pulses, generally located in low-lying areas, which may consist of watercourse diversion zones, flood plains, former flood plains and natural depressions where the water table rises permanently or seasonally. It may present some scattered arboreal and/or shrubby elements.(IDEAM,2010, Fundación Gaia Amazonas, 2022)	WG, WW		■ ILV-C1-ID11-OR.png	■ ILR-C1-ID11-OR.png	GE-C1-ID11-OR	P-C1-ID11-OR
		Pacific	Areas with a predominance of natural herbaceous vegetation that may present some arboreal elements to a lesser extent, areas with scattered communities of palms or "morichales", which in no case exceed 10%. They are generally found in the flood plains of the valleys and alluvial plains. (IDEAM,2010).			■ ILV-C1-ID11-PA.png	■ ILR-C1-ID11-PA.png	GE-C1-ID11-PA	<u>P-C1-ID11-PA</u>
		Amazon	Herbaceous vegetation (grasses), mainly flat to slightly undulating or dissected surfaces, with scattered or isolated tree and/or shrub elements, located mainly in areas with edaphic limitations, between 300 and 800 m.a.s.l. It is generally surrounded by gallery forests with natural pastures and some degraded areas (mining, urban areas, crops or other areas of use) or rocky outcrops. At certain times of the year it may be covered by a sheet of water that causes the soils to be permanently oversaturated. In the savannas of the Colombian Amazon, the scarce physiographic element is associated with this cover, which constitutes a micro-relief in ridges of more than 60 cm in height, easily distinguishable by means of remote sensors.			■ ILV-C1-ID12-AM.png	■ ILR-C1-ID12-AM.png	GE-C1-ID12-A M.png	<u>P-C5-ID12-AM</u>
Non forest	Grassland	Orinoco	Geomorphologically flat land area covered by natural vegetation, mainly grasses, subxerophytic grasses, abundant fruticals (perennial plant, with woody stems and branches from the base, similar to shrubs), without trees or with scattered presence of them. In the Colombian Orinoquia, this vegetation characterizes the Sabana ecosystem and its predominance indicates edaphological factors in the area, such as nutrient deficiency and high soil permeability, which favors rapid drying in the dry season and soil washing in the rainy season. The continuity of this vegetation is interrupted by the presence of gallery forests that cover the course of rivers and streams, as well as by grazing activities and periodic burns that have a regenerative function in the savanna, the latter being evidence of the expansion of anthropogenic activities into these natural areas (Cuatrecasas, 1989).		GNM	■ ILV-C1-ID12-OR.png	■ ILR-C1-ID12-OR.png	GE-C5-ID12-OR	<u>P-C5-ID12-OR</u>



	Level 1 Level 2						Imágenes Landsat			
Level 1	Level 2	Biome	Description	FAO Classes	Land cover (IPCC)	False color combination RGB 654	False color combination RGB 564	False color	Natural color	Landscape
natural formation	Hypersaline tidal flat	Caribbean	Stationary cover of natural origin characterized by an accumulation of salts due to evaporation processes and/or infiltration of seawater, which can be intervened or unintervened, the former through land development without reaching a scale of industrial extractivism. At the climatic level, it is found in arid or semi-arid climates, conditions that favor its active state, and together with its composition, there are extremophile micro-organisms (Torres, 2003).	OX	0	■ ILV-C1-ID32-CA.png		■ ILB-C1-ID32-CA.png	GE-C1-ID32- CA.png	<u>P-C1-ID32-CA</u>
		Amazon				■ ILV-C1-ID29-AM.png	■ ILR-C1-ID29-AM.png	■ ILB-C1-ID29-AM.png	GE-C5-ID29-AM	<u>P-C5-ID29-AM</u>
		Andes	 Corresponds to areas made up of exposed rock layers, where erosion and precipitation processes have caused the exposure of the bedrock, with little or no vegetation; generally located on steep, steep slopes. In the Andes and the Caribbean they are also usually associated with mountain glaciers, volcanoes, faults 			■ ILV-C1-ID29-AN.png	■ ILR-C1-ID29-AN.png	■ ILB-C1-ID29-AN.png	GE-C1-ID29-AN	P-C1-ID29-AN
	Rocky outcrop	Caribbean		OX	0	■ ILV-C1-ID29-CA.png	■ ILR-C1-ID29-CA.png	■ ILB-C1-ID29-CA.png	GE-C1-ID29-CA	P-C1-ID29-CA
		Orinoco				■ ILV-C1-ID29-OR.png	■ ILR-C1-ID29-OR.png	■ ILB-C1-ID29-OR.png	GE-C1-ID29-OR	<u>P-C1-ID29-OR</u>
		Pacific				■ ILV-C1-ID29-PA.png	■ ILR-C1-ID29-PA.png	■ ILB-C1-ID29-PA.png	GE-C1-ID29-PA	P-C1-ID29-PA
	Herbaceous sandbank vegetation	Caribbean	Herbaceous vegetation located below 800 m.a.s.l. in arid and very dry environments, predominantly in the upper and middle Guajira with temperature ranges above 24°C. (MEC,2017) (IDEAM,2010)	OX, OG	GNM	■ ILV-C1-ID50-CA.png	■ ILR-C1-ID50-CA.png	■ ILB-C1-ID50-CA.png	<u>GE-C1-ID49-CA</u>	<u>P-C1-ID49-CA</u>
		Amazon	In the Amazon region, it corresponds to a vegetation community composed mainly of herbaceous elements that create an open cover with a height of less than 5 meters. This vegetation has been minimally intervened, preserving its original structure and functions. There are no isolated trees in this area. It develops on rocky outcrops, areas with hilly relief, tepuis and sandy soils with low moisture retention. These grasslands are found in geological formations such as wind-blown sands, rocky outcrops and stony areas (IDEAM, 2010).			■ ILV-C1-ID13-AM.png	■ ILR-C1-ID13-AM.png	■ ILB-C1-ID13-AM.png	GE-C1-ID13-A M.png	<u>P-C5-ID13-AM.pn</u>
	Other non forest formation	Andes	In the Andes region, the vegetation cover is characterized by natural ecological successions, with shrub and herbaceous growth with heights of less than 5 meters. It develops in different altitudinal levels, such as Andean, high Andean, paramo and cloud forests, with minimal human intervention. The shrub communities form an irregular canopy, with perennial plants with woody stems and abundant branches. There are also areas covered by shrub vegetation, with the presence of shrubs, palms, vines, low vegetation and some isolated trees. In addition, there are páramo, subpáramo and high mountain grasslands, as well as different types of grasslands with scattered arboreal and/or shrub elements (IDEAM, 2010). (IDEAM,2010)	WS, WG, OG	GNM,GM,GSec	■ ILV-C1-ID13-AN.png	■ ILR-C1-ID13-AN.png	■ ILB-C1-ID13-AN.png	GE-C1-ID13-AN.P NG	P-C1-ID13-AN.pn g
		Caribbean	For the Caribbean region, it refers to a set of vegetation found in its natural state, without the significant influence of human activity, and which is composed mainly of shrubs and herbaceous plants. These vegetation covers have evolved naturally over time on different substrates and altitudes, with little or no human intervention. It corresponds to a natural cover consisting of grasslands that develops in areas that are not subject to periods of flooding, which may or may not have scattered tree and/or shrub elements (IDEAM, 2010). (IDEAM, 2010).			■ ILV-C1-ID13-CA.png	■ ILR-C1-ID13-CA.png	■ ILB-C1-ID13-CA.png	GE-C1-ID13-CA.P NG	P-C1-ID13-CA.pn



	Level 2				Land cover		lmágenes Landsat		Natural color	
Level 1	Level 2	Biome	Description	FAO Classes	(IPCC)	False color combination RGB 654	False color combination RGB 564	False color combination RGB 764	Natural color	Landscape
		Pacific	For the Pacific region, it corresponds to a natural cover consisting of grasslands that develop in areas that are not subject to periods of flooding, which may or may not have scattered arboreal and/or shrub elements. This category also includes other forms of cover, such as areas where shrub vegetation prevails with an irregular canopy structure and the presence of shrubs, palms, vines and small plants (IDEAM, 2010).			■ ILV-C1-ID13-PA.png	■ ILR-C1-ID13-PA.png	■ ILB-C1-ID13-PA.png	GE-C1-ID13-PA.P NG	P-C1-ID13-PA.pn g
		Amazon	This coverage is characterized by the presence of extensive areas of symmetrical and regular oil palm (Elaeis guineensis) plantations, whether transient or permanent, developed in considerably large plots compared to traditional crops, and their production is carried out on an industrial scale. Its cultivation develops favorably in volcanic soils and alluvial and marine clays, in low-lying areas (below 500 meters above sea level), with good permeability and good drainage (Aguilera, 2002). Oil palm shows a significant growth in the national territory, especially for the departments of the Caribbean region, as it has represented about 30% of the tons produced (Maza et al., 2017); in the Orinoquia region, oil palm production has been of great importance, representing up to 37% of the national total (Rojas, 2016).							
		Andes			Ac	■ ILV-C1-ID35-CA.png				
	Palm oil	Caribbean		NOT APPLICABLE			■ ILR-C1-ID35-CA.png	■ ILB-C1-ID35-CA.png	GE-C1-ID35-CA	<u>P-C1-ID35-CA</u>
		Orinoco								
		Pacific								
		Amazon	These coverages consist of plantations of arboreal vegetation, carried out by direct human intervention for forest management purposes. In this process, forest stands are established by planting and/or seeding during the afforestation or reforestation process, for timber production (commercial plantations), this cover presents a regular geometric pattern in the satellite image, consisting of rows of trees generally of the same age. In the Andean region, Antioquia is the department with the largest planted area (22.1%) of the national total, the species with the largest planted area in the region are patula pine and eucalyptus (MADR, 2022), most of these plantations are located in hillside areas with gentle to medium slopes, and are characterized by a uniform and continuous canopy. In the Orinoquia, Vichada is the department with the largest area planted mainly with pine "Pinus Caribbeana" and Acacia "Acacia mangium" (MADR, 2022), most of these plantations are delimited by the region's gallery forests, established in areas where there were previously natural or artificial pastures. In the Caribbean region, the species with the largest planted area in the region are teak "Tectona grandis" and Melina "Cmelina arborea" (MADR, 2022), most of these plantations are located in flat areas with gentle slopes.In the Pacific region, the species with the largest planted area are pine "Pino patula", Eucalyptus "Eucalyptus globulus", and some native species (MADR, 2022),			■ ILV-C1-ID9-AM.png	■ ILR-C1-ID9-AM.png	■ ILB-C1-ID9-AM.png	GE-C5-ID9-A M.png	P-C5-ID9-AM
		Andes				■ ILV-C1-ID9-AN.png	■ ILR-C1-ID9-AN.png	■ ILB-C1-ID9-AN.png	GE-C1-ID9-AN	P-C1-ID9-AN
	Forest plantation	Caribbean		FPB, FPC, FPM	Ref	■ ILV-C1-ID9-CA.png	■ ILR-C1-ID9-CA.png	■ ILB-C1-ID9-CA.png	GE-C1-ID9-CA	<u>P-C1-ID9-CA</u>
		Orinoco				■ ILV-C1-ID9-OR.png	■ ILR-C1-ID9-OR.png	■ ILB-C1-ID9-OR.png	GE-C1-ID9-OR	P-C1-ID9-OR
		Pacific				■ ILV-C1-ID9-PA.png	■ ILR-C1-ID9-PA.png	■ ILB-C1-ID9-PA.png	GE-C1-ID9-PA	<u>P-C1-ID9-PA</u>



		Diama			Land cover		lmágenes Landsat		Natural color	
Level 1	Level 2	Biome	Description	FAO Classes (IPCC)		False color combination RGB 654	False color combination RGB 564	False color combination RGB 764	Natural color	Landscape
Agricultural and livestock area		Amazon	This coverage covers an area in constant expansion since it does not present topographic limitations with long-lasting harvest cycles, alternating between pasture and crop management, some of the crops that can be found are: coffee, fruit trees, cocoa, among others. The area is made up of an association of crops (permanent and/or transitory), pastures (in rotation, rest and/or fallow) mainly dedicated to the production of food, fibers and other industrial raw materials, as well as heterogeneous agricultural areas with both livestock and agricultural uses. They have a defined geometric pattern and in some large-scale crops have a dendritic pattern that follows the layout of access roads and drainage ditches for export. Transient crops have a vegetative cycle of less than one year, which after harvesting require replanting to continue production. Permanent crops have a vegetative cycle of more than one year, producing several harvests without replanting; these include herbaceous and shrub crops. Pastures include areas dedicated to permanent grazing for more than 2 years, and may have temporary or permanent waterlogging in low areas or depressions in the terrain.			■ ILV-C1-ID21-AM.png	■ ILR-C1-ID21-AM.png	■ ILB-C1-ID21-AM.png	GE-C5-ID21-AM	<u>P-C5-ID21-AM</u>
		Andes	The cover is mainly represented by transitory crops, pasture mosaic and some permanent crops that have intricate spatial patterns, which makes it difficult to represent each of them individually because of their small size or in some cases because they are located on slopes. Agriculture is mainly associated with coffee, rice, citrus, fruit, banana, leguminous and family farming crops. Meanwhile, pasture mosaics are small in size and are mainly used for non-intensive livestock farming, in some cases in natural areas. Their main characteristic is the regular and irregular geometric pattern of a lot.(IDEAM,2018) (Rosales, 2013).			■ ILV-C1-ID21-AN.png	■ ILR-C1-ID21-AN.png	■ ILB-C1-ID21-AN.png	GE-C1-ID21-AN	P-C1-ID21-AN
	Mosaic of agriculture and pasture	Caribbean	The cover is mainly represented by transitory crops, some permanent crops and pasture mosaics, which in most cases are difficult to represent individually due to their small size and intricate spatial pattern. The agriculture found in the region is mainly associated with rice, maize, banana, some leguminous crops and other family farming crops. The pasture mosaics are mainly used for livestock activities such as cattle raising, with clean pastures, weededed pastures and pastures with natural spaces. Its main characteristic is the regular and irregular geometric pattern of a lot.(IDEAM,2018) (Rosales, 2013).	0	Ac, Ap	■ ILV-C1-ID21-CA.png	■ ILR-C1-ID21-CA.png	■ ILB-C1-ID21-CA.png	GE-C1-ID21-CA	<u>P-C1-ID21-CA</u>
		Orinoco	In the Orinoquia, this cover is mainly represented by a mosaic of transitory and permanent crops and a marked presence of pastures, which can be confused with rural and floodable formations (class 12 and 11). Agriculture is mainly associated with rice, corn, soybeans, cacao, cassava, beans, citrus, sugarcane and family farming. The pasture mosaics are mainly clean pastures, wooded, weededed and in natural areas, mainly used for livestock production activities such as extensive cattle raising. In some cases these pastures are rotated depending on the flooding of the natural grasslands found in the region, therefore, it is a class that in some places is not static and presents a high range of tones due to the different phenological stages and varied management practices. Its main characteristic is the regular and irregular geometric pattern of a lot.(IDEAM,2018) (ADR,2019).			■ ILV-C1-ID21-OR.png	■ ILR-C1-ID21-OR.png	■ ILB-C1-ID21-OR.png	<u>GE-C1-ID21-OR</u>	<u>P-C1-ID21-OR</u>



				_	Land cover		lmágenes Landsat			_
Level 1	Level 2	Biome	Description	FAO Classes	(IPCC)	False color combination RGB 654	False color combination RGB 564	False color combination RGB 764	Natural color	Landscape
		Pacific	This cover is represented by transitory and permanent crops, some pasture mosaics, which have an intricate spatial pattern due to their small size, making it difficult to represent them individually. Agriculture is mainly associated with the cultivation of bananas, fruit trees, sugarcane, other family farming crops and the vegetative stages of large-scale crops such as oil palm. Pastures are used for livestock activities such as cattle raising and are not large in size. The pastures are clean, weeded and in natural areas. As in the other regions, this cover has a wide range of shades due to the different phenological stages and varied management practices that occur in the different plots, and therefore can generate confusion with other classes. Its main characteristic is the regular and irregular geometric pattern of a plot.(IDEAM,2018) (Gobernación Valle del Cauca, 2013).			■ ILV-C1-ID21-PA.png	■ ILR-C1-ID21-PA.png	■ ILB-C1-ID21-PA.png	GE-C1-ID21-PA	<u>P-C1-ID21-PA</u>
		Amazon	This coverage includes those territories in which vegetation cover is absent or scarce, composed mainly of sandy cover and rocky outcrops, also considered areas of low and flat terrain composed mainly of sandy and stony soils, usually lacking vegetation or covered by sparse vegetation of low and scattered shrubs. These areas are found on river beaches, river sandbanks and dune fields. Also included are surfaces made up of land covered by sand, silt or pebbles in flat areas of coastal and terrestrial environments, which are not associated with river, sea or wind activity (FAO, 2000; IDEAM 2010).			■ ILV-C1-ID23-AM.png	■ ILR-C1-ID23-AM.png	■ ILB-C1-ID23-AM.png	GE-C1-ID23- AM.png	P-C5-ID23-AM.P NG
		Andes	In the Andes this coverage corresponds to the remains of the relicts of the mobile banks and abandoned meanders, in this case the vegetation is scarce, this coverage is composed of sandy to rocky coverages, likewise, it corresponds to desert or xerophytic formations of scattered vegetation, no more than 20% of the coverage.	OX		■ ILV-C1-ID23-AN.png	■ ILR-C1-ID23-AN.png	■ ILB-C1-ID23-AN.png	GE-C1-ID23- AN.png	<u>P-C1-ID23-AN</u>
	Beach, dune and sand spot	Caribbean	In the Caribbean region, it occurs in several natural formations, the first on the shores or coasts of the Caribbean Sea, are formations with their own notorious spectral response, product of albedo or light reflectance are flat formations with sandy soils found in the Guajira area corresponding to desert or xerophytic formations of sparse and sparse vegetation not exceeding 20%, similarly, sandbar formations are found in the vestiges of the relicts of mobile banks and abandoned meanders.		0	■ ILV-C1-ID23-CA.png	■ ILR-C1-ID23-CA.png	■ ILB-C1-ID23-CA.png	GE-C1-ID23- CA.png	P-C1-ID23-CA
		Orinoco	In the Orinoco region, it occurs in several natural formations, the first in Arauca, are formations with their own notorious spectral response, product of albedo or light reflectance are flat formations with sandy soils found in the southeastern area of the department, presents desert or xerophytic formations of sparse vegetation and sparse no more than 20%, similarly, sandbar formations are found in the remnants of the relicts of mobile banks and abandoned meanders.			■ ILV-C1-ID23-OR.png	■ ILR-C1-ID23-OR.png	■ ILB-C1-ID23-OR.png	GE-C1-ID23- OR.png	<u>P-C1-ID23-OR</u>
		Pacific	In the Pacific, this coverage corresponds to the remnants of the relicts of the mobile banks and abandoned meanders, in this case the vegetation is scarce, this coverage is composed of sandy to rocky coverages, likewise, it corresponds to desert or xerophytic formations of scattered vegetation, no more than 20% of the coverage.			■ ILV-C1-ID23-PA.png	■ ILR-C1-ID23-PA.png	■ ILB-C1-ID23-PA.png	GE-C1-ID23-PA	P-C1-ID23-PA
		Amazon				■ ILV-C1-ID24-AM.png	■ ILR-C1-ID24-AM.png	■ ILB-C1-ID24-AM.png	GE-COL5-ID24-A M.png	P-C5-ID24-AM.p ng
		Andes	Area of human settlement associated with large and small urban centers (towns) with built environment infrastructure such as road and rail networks and associated land, in addition to other artificialized areas			■ ILV-C1-ID24-AN.png	■ ILR-C1-ID24-AN.png	■ ILB-C1-ID24-AN.png	GE-COL1-ID24-A N.png	P-C1-ID24-AN.pn g



					Land cover		Imágenes Landsat			
Level 1	Level 2	Biome	Description	FAO Classes	(IPCC)	False color combination RGB 654	False color combination RGB 564	False color combination RGB 764	- Natural color	Landscape
Nonvegetated	Urban area	Caribbean	such as hydrocarbon exploitation works, hydroelectric plants, military bases, airports, port areas and non-agricultural green areas such as recreational facilities in urban centers, urban lawns, road dividers	ОВ	S	■ ILV-C1-ID24-CA.png	■ ILR-C1-ID24-CA.png	■ ILB-C1-ID24-CA.png	GE-COL1-ID24-C A.png	P-C1-ID24-CA.pn
Non vegetated area		Orinoco	and non-conventional airstrips in rural areas. Peripheral areas that are being included in a gradual process of urbanization for residential purposes and/or industrial zones are also considered,			■ ILV-C1-ID24-OR.png	■ ILR-C1-ID24-OR.png	■ ILB-C1-ID24-OR.png	GE-COL1-ID24-O R.png	P-C1-ID24-OR.pn g
		Pacific				■ ILV-C1-ID24-PA.png	■ ILR-C1-ID24-PA.png	■ ILB-C1-ID24-PA.png	GE-COL1-ID24-P A.png	P-C1-ID24-PA.pn g
		Amazon				■ ILV-C1-ID30-AM.png	■ ILR-C1-ID30-AM.png	■ ILB-C1-ID30-AM.png	GE-C5-ID30-AM. png	<u>P-C5-ID30-AM</u>
		Andes	Includes areas where materials are extracted or accumulated from open-pit mining or fluvial mining with clear exposure of the soil. It does not differentiate whether it is industrial, artisanal, riverine or illegal. It includes areas dedicated to the extraction of materials (sandbanks, gravel pits, quarries), areas for the exploitation of coal, gold, among others; as well as salt extraction areas associated with maritime salt mines. (IDEAM, 2010).			■ ILV-C1-ID30-AN.png	■ ILR-C1-ID30-AN.png	■ ILB-C1-ID30-AN.png	GE-C1-ID30-AN.p	<u>P-C1-ID30-AN</u>
	Mining	Caribbean		OQ	0	■ ILV-C1-ID30-CA.png	■ ILR-C1-ID30-CA.png	■ ILB-C1-ID30-CA.png	GE-C1-ID30-CA.p ng	<u>P-C1-ID30-CA</u>
		Orinoco				■ ILV-C1-ID30-OR.png	■ ILR-C1-ID30-OR.png	■ ILB-C1-ID30-OR.png	GE-C1-ID30-OR	P-C1-ID30-OR
		Pacific				■ ILV-C1-ID30-PA.png	■ ILR-C1-ID30-PA.png	■ ILB-C1-ID30-PA.png	GE-C1-ID30-PA	<u>P-C1-ID30-PA</u>
	Amazon Andes									
		Andes	Includes those areas devoid of vegetation or with little vegetation cover, caused by natural erosive processes or natural phenomena. Includes landslides, important areas such as the Tatacoa Desert and the Sabrinsky Desert.							
	Other natural non vegetated area	Caribbean		OQ	0	■ ILV-C2-ID68.png	■ ILR-C2-ID68.png	■ ILB-C2-ID68.png	GE-C2-ID68. png	P-C2-ID68.p
	urcu	Orinoco								
		Pacific								
		Amazon				■ ILV-C1-ID25-AM.png	■ ILR-C1-ID25-AM.png	■ ILB-C1-ID25-AM.png	GE-C5-ID25-AM	<u>P-C5-ID25.AM</u>
		Andes				■ ILV-C1-ID25-AN.png	■ ILR-C1-ID25-AN.png	■ ILB-C1-ID25-AN.png	GE-C1-ID25-AN	<u>P-C1-ID25-AN</u>
	Other non vegetated area	Caribbean	Intervened areas of anthropogenic origin (infrastructure, urban expansion or mining) not mapped in their classes and soils devoid of vegetation or scarce vegetation cover. Also included are burned areas and areas of cultivation in preparation or fallow.	OX, OB, OQ	0	■ ILV-C1-ID25-CA.png	■ ILR-C1-ID25-CA.png	■ ILB-C1-ID25-CA.png	GE-C1-ID25-CA	<u>P-C1-ID25-CA</u>
		Orinoco				■ ILV-C1-ID25-OR.png	■ ILR-C1-ID25-OR.png	■ ILB-C1-ID25-OR.png	GE-C1-ID25-OR	P-C1-ID25-OR.pn g
		Pacific				■ ILV-C1-ID25-PA.png	■ ILR-C1-ID25-PA.png	■ ILB-C1-ID25-PA.png	GE-C1-ID25-PA	P-C1-ID25-PA.pn
		Amazon								
		Andes	It includes any permanent or seasonal surface water extension, formed naturally or by anthropic action,							
	River, lake and ocean	Caribbean	generally for energy production and aqueduct supply. Within this class are included rivers, lakes, lagoons,	IRP, IRS, IL, ID, IP	А	■ ILV-C1-ID33-AN.png	■ ILR-C1-ID33-AN.png	■ ILB-C1-ID33-AN.png	GE-C1-ID33-AN	<u>P-C1-ID33-AN</u>
		Orinoco	oceans, reservoirs, swamps, canals and ponds (IDEAM, 2010).							



Level 1	Level 2	Biome	Description	FAO Classes	Land cover			Natural color	Landasana	
Level i	Level 2	Biome		FAO Classes	(IPCC)	False color combination RGB 654	False color combination RGB 564	False color combination RGB 764		Landscape
		Pacific								
		Andes			NOT APPLICABLE A	■ ILV-C1-ID31-AN.png	■ ILR-C1-ID31-AN.png	■ ILB-C1-ID31-AN.png	GE-COL1-ID31-A	P-COL1-ID31-AN
Water body	A	Caribbean	Artificial bodies of water used for the breeding of crustaceans, shrimp and freshwater and saltwater fish.	NOT ARRUGARIE		■ ILV-C1-ID31-CA.png	■ ILR-C1-ID31-CA.png	■ ILB-C1-ID31-CA.png		P-COL1-ID35-CA
	Aquaculture	Orinoco	This cover is made up of a series of adjacent pools and is characterized by a regular geometric pattern.	n. NOT APPLICABLE	A	■ ILV-C1-ID31-OR.png	■ ILR-C1-ID31-OR.png	■ ILB-C1-ID31-OR.png	GE-COL1-ID31-O	P-COL1-ID31-OR
		Pacific				■ ILV-C1-ID31-PA.png	■ ILR-C1-ID31-PA.png	■ ILB-C1-ID31-PA.png	GE-COL1-ID31-PA	
		Andes	Area of coverage by a permanent ice mass and/or constant snow in areas of accumulation and/or ablation (Serrano & González,2004), located on the summits of the Sierra Nevada de Santa Marta and on the peaks of the Andes Mountains, in a focal and/or distributed manner, lacks vegetation cover and is	NOT APPLICABLE		■ ILV-C1-ID34-AN.png	■ ILR-C1-ID34-AN.png	■ ILB-C1-ID34-AN.png	GE-C1-ID34-AN	P-C1-ID34-AN
	Glacier and nival	Caribbean	surrounded by rocky outcrops and possible glacial lakes. These areas are distributed within the Páramo orobiome and belong to an edaphogenetic environment of low temperatures (IDEAM et al., 2017), in addition this cover is present after 4,000 masl.	NOT APPLICABLE	ABLE	■ ILV-C1-ID34-CA.png)	■ ILR-C1-ID34-CA.png	■ ILB-C1-ID34-CA.png	<u>GE-C1-ID34-CA</u>	<u>P-C1-ID34-CA</u>
	Non observed		Areas that could not be identified in their classes due to the presence of clouds, cloud shadows, atmospheric noise or quality of satellite images throughout the series	NOT APPLICABLE	NO		■ IL-C1-ID27.PNG		-	-