

Country Profile: Colombia

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Country Resources

Topographic

Series	Publisher	Scale	Years	Sheets
Colombia 1:100,000 Scale Topographic Maps (DMA E671)	DMA	1:100,000	1968 - 2009	404
Colombia 1:50,000 Scale Topographic Maps	IGAC	1:50,000	1959 - 1987	403
Colombia 1:100,000 Scale Topographic Maps (Historical Series)	IGAC	1:100,000	1959 - 1998	198
Colombia 1:100,000 Scale Topographic Maps	IGAC	1:100,000	2005 - 2009	597
Colombia 1:200,000 Scale Topographic Maps	IGAC	1:200,000	1969 - 1998	134
Colombia 1:500,000 Scale Topographic Maps	IGAC	1:500,000	2007	27
Venezuela 1:250,000 Scale Topographic Maps	IGVSB	1:250,000	1971 - 1979	39
VMAPO 1:1,000,000 Scale Vector Data	NIMA	1:1,000,000	1992	4

Nautical

Series	Publisher	Scale	Years	Sheets
Colombia Nautical Charts (All Scales)	CIOH	Varies	1997 - 2025	246

Geoscientific

Series	Publisher	Scale	Years	Sheets
Colombia Geological Maps by Department (State)	INGEOMINAS	Varies	2006	21
Colombia 1:500,000 Scale Geological Vector Data	INGEOMINAS	1:500,000	2011	3
Colombia 1:1,000,000 Scale Geological Map	INGEOMINAS	1:1,000,000	2007	1
Colombia 1:1,000,000 Scale Hydrogeological Map	INGEOMINAS	1:1,000,000	1989	1
Colombia 1:1,000,000 Scale Gravimetric Map	IGAC	1:1,000,000	1998	1
Colombia 1:200,000 Scale Geological Maps	SGNC	1:200,000	1957 - 1966	3

Thematic

Series	Publisher	Scale	Years	Sheets
The World 1:30,000,000 Scale Topographic Map Series 1145 (NGA)	DMA	1:30,000,000		2
Colombia 1:2,000,000 Scale Afro-Colombian Communities Map	IGAC	1:2,000,000	2012	1
Colombia 1:2,000,000 Scale Indigenous Reservations Map	IGAC	1:2,000,000	2012	1

Global Census Archive: GIS Census Data

Year	Questions / Answers	ADM Level	Polygons at ADM	Data Points
2005	42 / 194	6	261,263	50,685,022
2018	70 / 1,013	6	349,708	354,254,204

Global Resources

Topographic

Series	Publisher	Scale	Years	Sheets
Soviet Military City Plans	VTU GSh	Varies	1944 - 2003	3,020
Soviet Military 1:100,000 Scale Topographic Maps	VTU GSh	1:100,000	1947 - 1999	24,897

Soviet Military 1:200,000 Scale Topographic Maps	VTU GSh	1:200,000	1949 – 2009	17,799
Soviet Military 1:500,000 Scale Topographic Maps	VTU GSh	1:500,000	1953 – 1998	3,093

Nautical

Series	Publisher	Scale	Years	Sheets
NGA Nautical Charts POD Certified (All Scales)	NGA	Varies	1943 – 2013	4,517

Aeronautical

Series	Publisher	Scale	Years	Sheets
Joint Operations Graphic (JOG 1501A) 1:250,000 – Aeronautical	DMA	1:250,000	1958 – 2007	4,204
Tactical Pilotage Chart (TPC) 1:500,000 Scale – Aeronautical	DMA	1:500,000	1967 – 2006	598
Operational Navigation Chart (ONC) 1:1,000,000 Scale – Aeronautical	DMA	1:1,000,000	1969 – 2001	243
Jet Navigation Chart (JNC) 1:2,000,000 Scale – Aeronautical	DMA	1:2,000,000	1971 – 1999	117
Global Navigation and Planning Chart (GNC) 1:5,000,000 Scale – Aeronautical	DMA	1:5,000,000	1981 – 1999	27

Geoscientific

Series	Publisher	Scale	Years	Sheets
Soviet Military 1:1,000,000 Scale Topographic Maps	VTU GSh	1:1,000,000	1948 – 1994	1,089

Note: East View Geospatial is continuously sourcing new resources that may not yet be listed in Global Explorer. Please contact us if you have geodata needs beyond what is listed above and we will be happy to discuss available off-the-shelf and custom solutions.

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Historical Country Mapping Information

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Country Profile (PDF)

Topographic

The principal mapping agency is the **Instituto Geográfico Agustín Codazzi (IGAC)**, Bogotá. Founded in 1935 as the **Instituto Geográfico Militar**, it acquired its present name in 1950. The **IGAC** is responsible for topographic mapping, cadastral survey, the inventory and classification of soil and other georeferenced environmental information, and for the compilation and publication of more general geographical material. There are four Subdirecciones for handling these various tasks. Besides its headquarters at Santa fé de Bogotá, **IGAC** has seven regional offices and 21 sectional headquarters situated in major urban centres.

Systematic topographic mapping of the country began in 1945, in cooperation with the United States **Army Map Service** (later **Defense Mapping Agency (DMA)** and now **National Imagery and Mapping Agency (NIMA)**) through a mapping agreement with the **Inter-American Geodetic Survey**. Basic scale series were initiated at 1:25,000 and 1:50,000. The 1:25,000 scale Carta preliminar was issued from 1946, and covers the northern half of the country. Sheets have a contour interval of 25 m or 50 m. The 1:50,000 scale map comprises two series with different specifications. A series was initially started in 1958 by **IGAC**, and covered several departments in the east and southwest in about 300 sheets before being discontinued. The projection for this is Gauss conformal. In 1964 a version on Transverse Mercator projection, International (Hayford) ellipsoid, was started by the **DMA**, and covers the north and center of the country. This is in five colors with 25 m contours.

At 1:100,000 scale there is an extensive, though still incomplete, cover of the country. This also exists as two series: an **IGAC** series, and a **DMA** series (E671) with different sheet layout and numbering. The **IGAC** series is in five colors with 25 m or 50 m contours. The DMA series is more extensive. Sheets are mainly in four colors, with an English and Spanish legend and contours at 20 m or 40 m. Since 1991, **DMA (NIMA)** has been issuing sheets as satellite image maps with names and grid overprinted, and **IGAC** has also begun publishing

image maps at this scale.

Parts of the country are also covered in a 1:200,000 scale series, started by **IGAC** in 1977. Contours are at 100 m intervals except in the southeast where the maps are planimetric and use a radar image base. There are also a number of 1:250,000 scale sheets, many of which are produced in the American **DMA** Series 1501 specification. Some sheets are in an aeronautical (JOG) version. This mapping is on the UTM projection, printed in seven colors, with contours at 50 m or 100 m intervals.

A 1:500,000 scale series in 24 sheets began in 1979. Only two sheets have appeared in the regular edition, but a large block of sheets is available for the south of the country in a radar image version.

There is a useful series of maps for each of the departments and intendencias, which also include inset maps of important cities. The latest editions were mostly published in the 1980s. Scales range from 1:100,000 to 1:500,000 depending on the size of the department.

The principal topographic map series now maintained by **IGAC** are the series at 1:25,000 and 1:100,000 scales. These are also used as base maps for thematic resource mapping and for cadastral purposes. New departmental mapping is also being derived from the 1:25,000 scale map. Large scale cadastral mapping is carried out in rural areas at 1:10,000 scale, and for urban areas at 1:2,000.

In 1992 a substantial overhaul and modernization of IGAC was initiated. This has included investment in new hardware and software tools, and digital production methods are now in place. The survey control is now being maintained using GPS and aerotriangulation, and analytical photogrammetry has also been introduced. A geographical information system is being developed using ARC/INFO and ORACLE software and all scales of mapping will be put into a digital mapping program. The German ATKIS data model has been adopted.

Soviet military topographic mapping of Colombia is available at the following scales: 1:1,000,000 (15 sheets, complete coverage, published 1963-1990); 1:500,000 (34 sheets, complete coverage, published 1963-1988) and a city (1:25,000) topographic map of Barranquilla published in 1979. These products are available in print, digital raster and digital vector GIS formats from **East View Geospatial**.

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Geological/Scientific

The **Instituto de Investigaciones en Geociencias, Minería y Química (INGEOMINAS)** was founded in 1916 as the **Comisión Científica Nacional**, but has had several changes of name. It took its present name in 1991 when the organization was restructured, but retained its acronym of **INGEOMINAS**, acquired in 1968. **INGEOMINAS** is attached to the **Ministry of Mines and Energy** and has a very active program of survey and research. Cartographic publications include the 1:1,500,000 scale geological map of the country, a 1:500,000 scale geological atlas, and a series of departmental maps which vary in scale from 1:25,000 to 1:500,000. Quadrangle mapping is published at 1:100,000 or 1:200,000 scales, accompanied by memoranda, covering about 30 percent of the country. Some of this has been undertaken in cooperation with the **United States Geological Survey**.

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Soil

The *Subdirección Agrológica* undertakes soil surveys and laboratory analyses, producing soil, land use and forestry mapping. Publications are wide ranging and include a national land capability survey (PROCLAS) undertaken in the 1970s at 1:500,000 scale, and a more recent small-scale atlas of soils and forestry. More detailed studies have been undertaken on a departmental basis, and include mapping of land capability, agro-ecological zones, biophysical zones, and land evaluation for cadastral purposes. A number of departmental soil studies have been published recently, each study comprises a monograph with a set of maps, usually at 1:100,000 or 1:200,000 scale.

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Atlas

The *Subdirección de Geografía* of **IGAC** produces a number of publications of interest. These include the national atlas, first published in 1967 and now in its fourth, 1992 edition, and the *Diccionario geográfico de Colombia*, now in its third edition. The latter is in four substantial volumes and contains more than 110,000 toponyms and 32 departmental maps. The next edition of this dictionary will be a CD-ROM version. In 1998, an *Atlas de Colombia multimedia* was published on CD-ROM. This includes 1:1,500,000 scale mapping of the country as well as images, video, audio, photographs, text and statistical data. Other products also include the *Atlas básico* and a series of departmental volumes, *Características geográficas departamentales*, containing much thematic mapping.

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Cadaster

The cadastral section within **IGAC** cooperates with other divisions in evaluating the physical, economic legal and fiscal attributes of land holdings.

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Tourist/Reference

Besides the government mapping, a few independent publishers produce general and tourist maps, including **Cartur**, which has a road and tourist map of the country and a city map of Cartagena, and **Rodriguez**.

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Census/Demography/Statistics

Statistical data is collected by the **Departamento Administrativo Nacional de Estadística (DANE)**, which is responsible for the demographic census, last held in 1993. It produces census tract maps and digital maps of urban areas.

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