

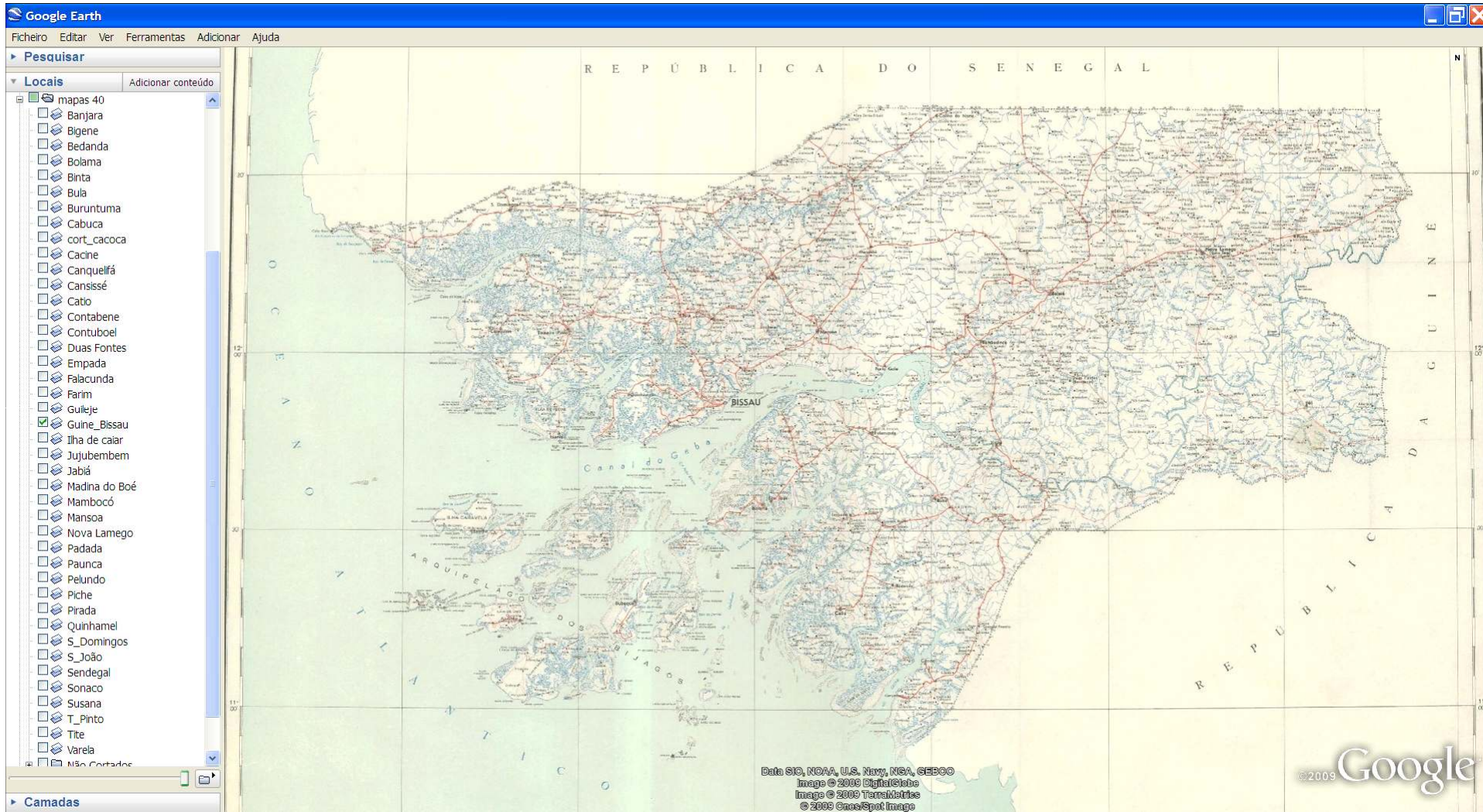
Exemplo de Visualização de IGD no software Google Earth

Tese: Tecnologias de Informação Geográfica e a Monitorização Ambiental em Contexto Africano
Por: Luís Filipe Marques

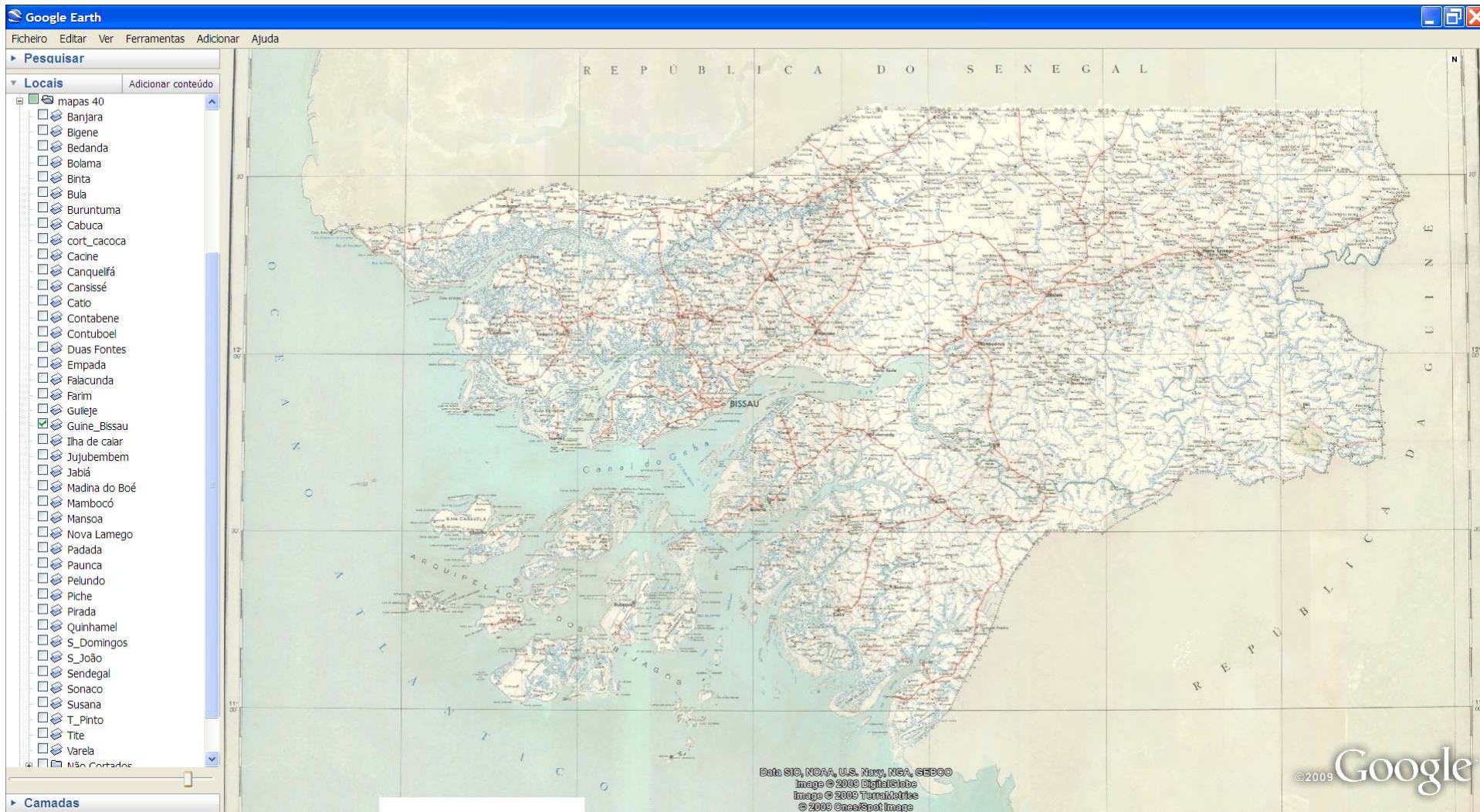
Orientador Científico: Professora Doutora Cláudia Sousa
Co-Orientador: Professor Doutor João Farinha

Mestrado em Ordenamento do Território e Planeamento Ambiental na Perspectiva das Comunidades Europeias
Faculdade de Ciências e Tecnologia
Universidade Nova de Lisboa

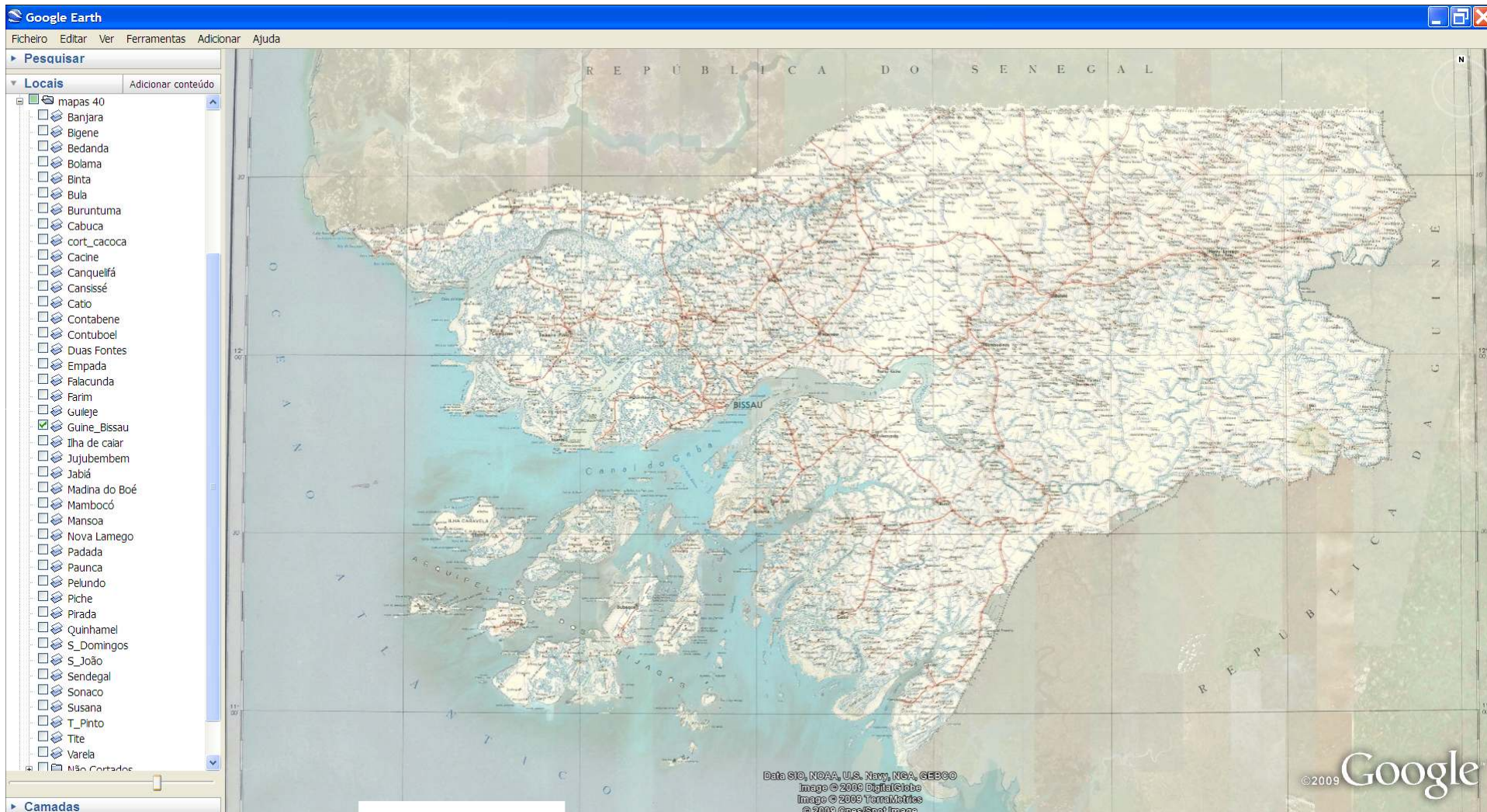
2009



Cartografia 1:500 000 (de 1961)



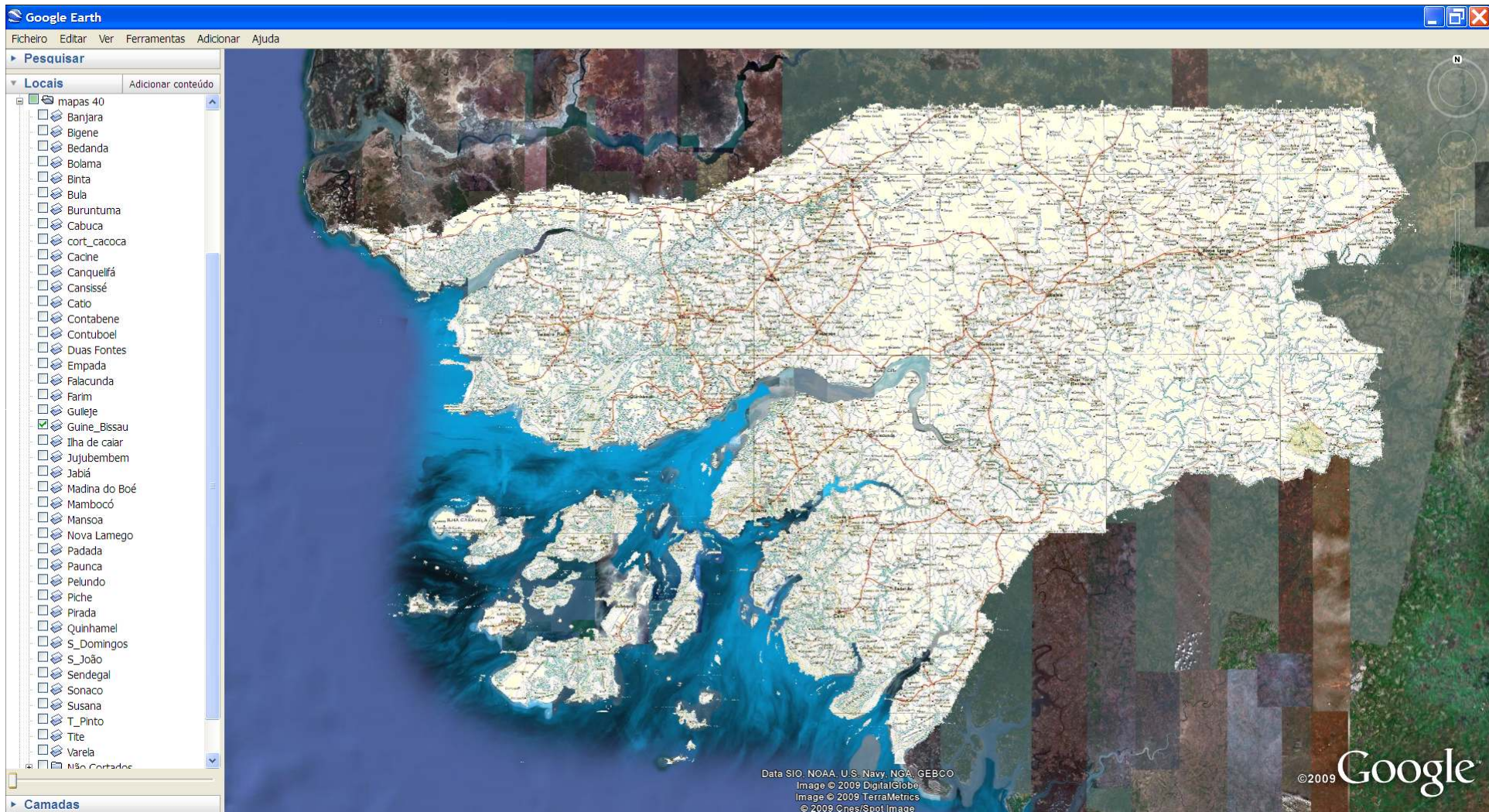
Cartografia 1:500 000 (de 1961). Extracção do excesso de informação



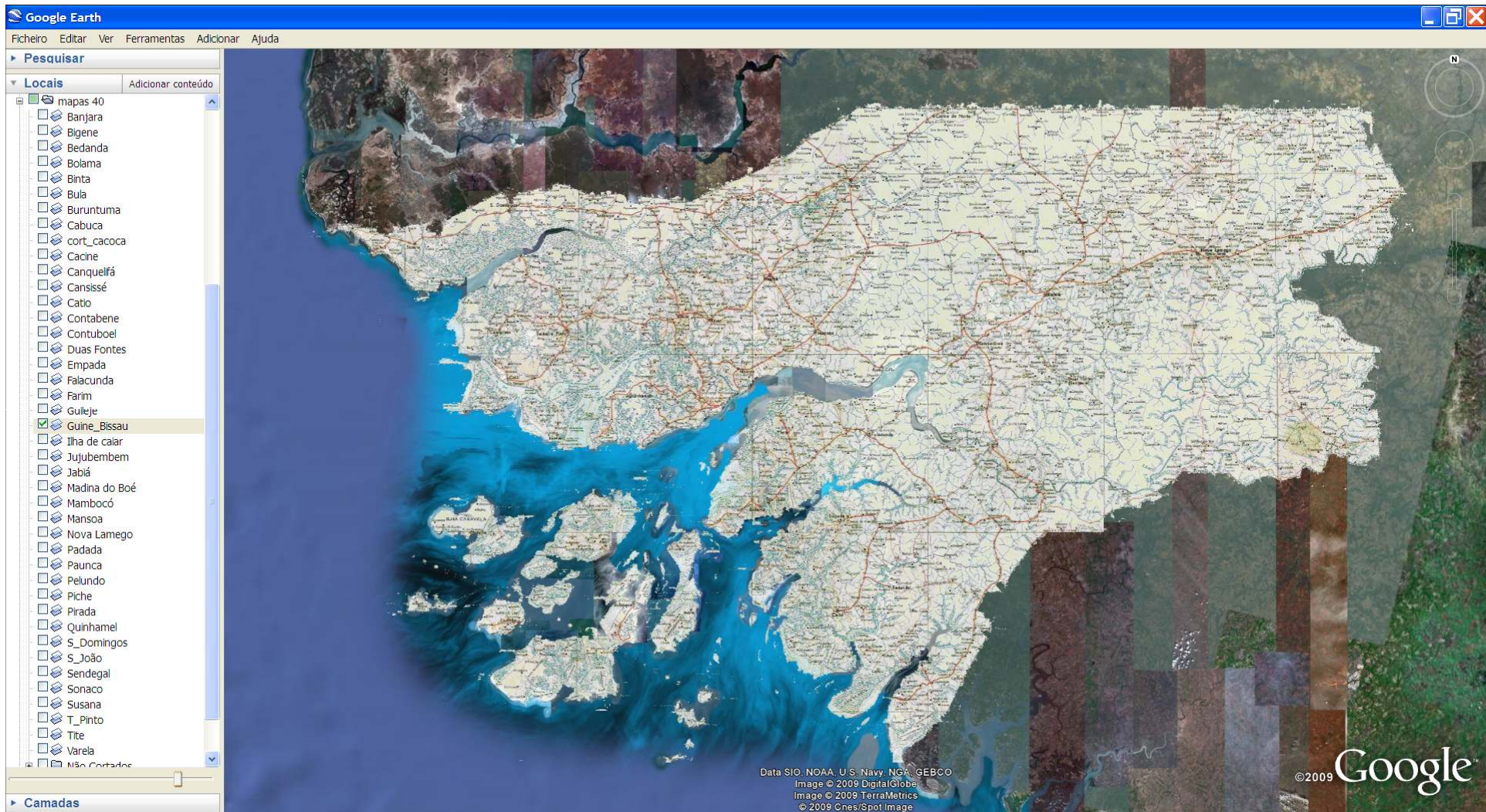
Cartografia 1:500 000 (de 1961). Extracção do excesso de informação



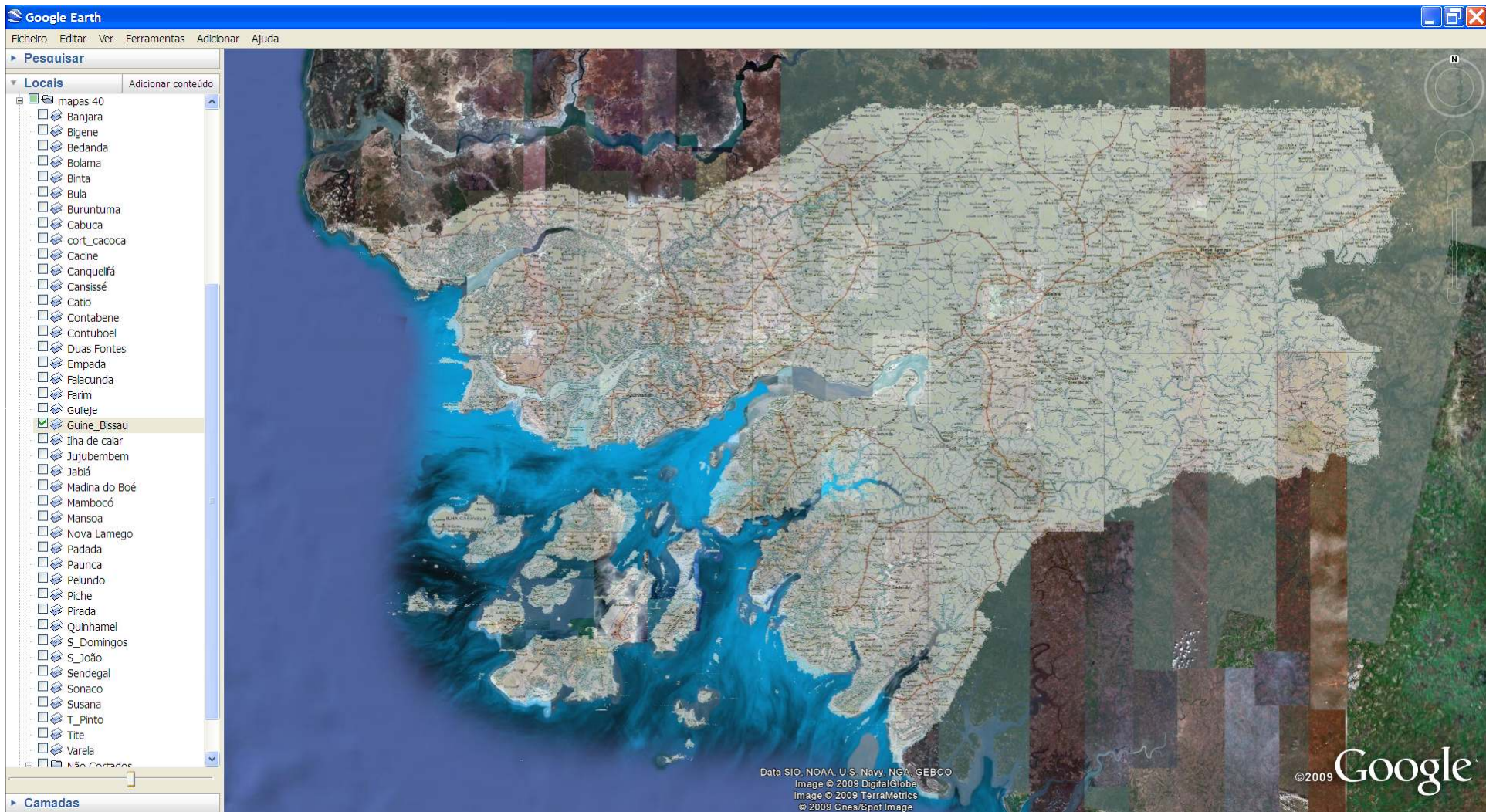
Cartografia 1:500 000 (de 1961). Extracção do excesso de informação



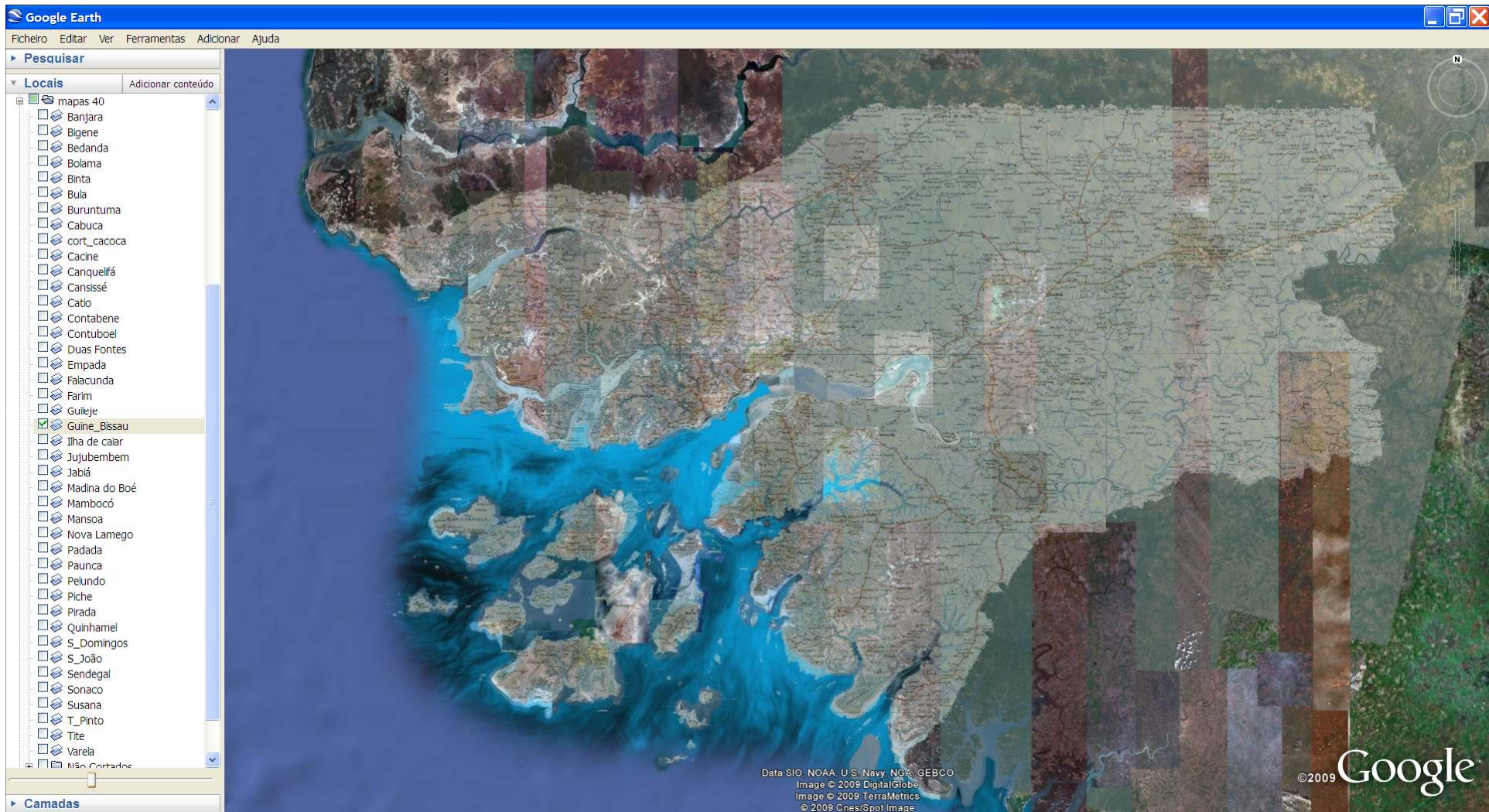
Cartografia 1:500 000 (de 1961). Extracção do excesso de informação



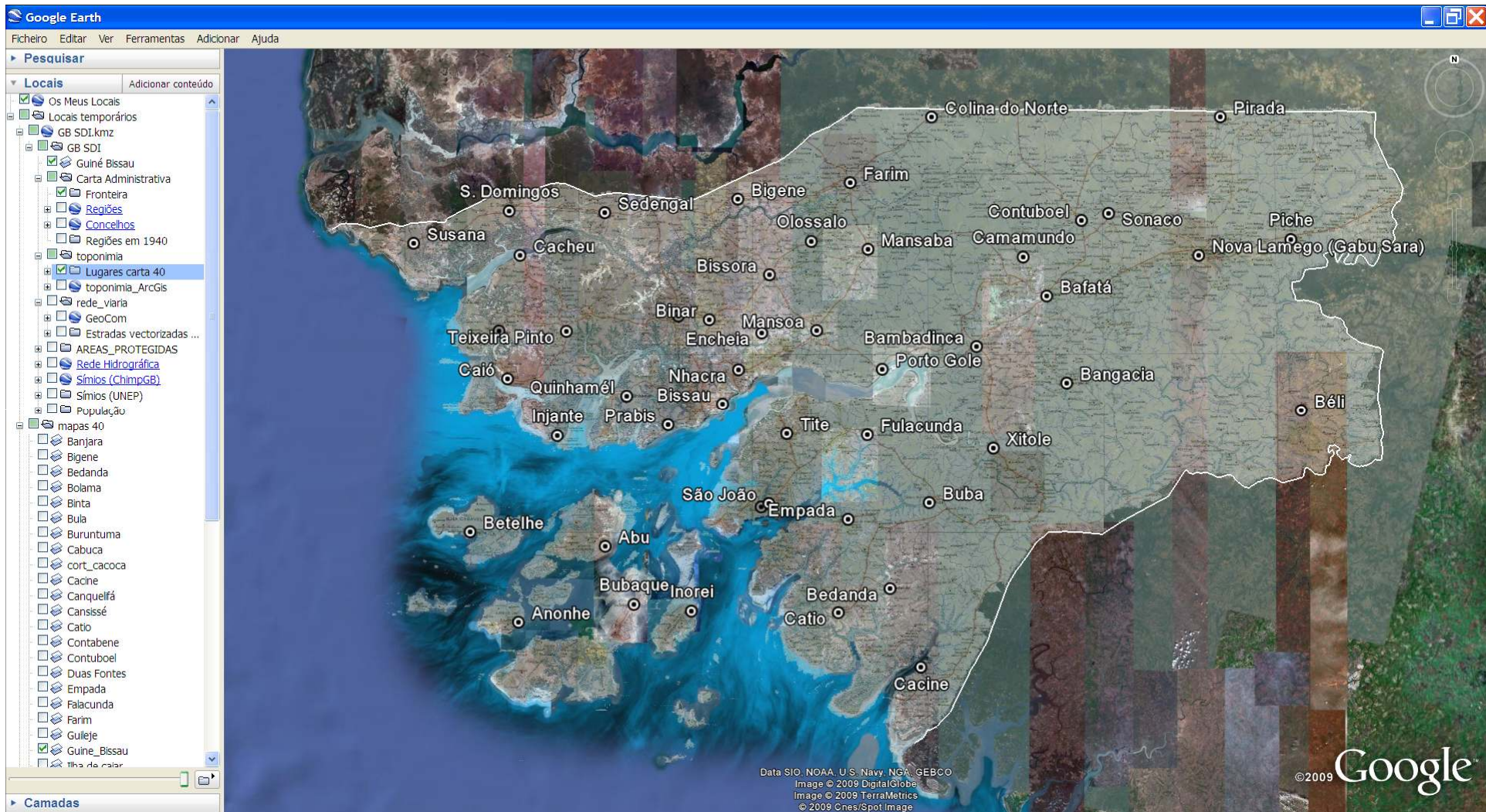
Cartografia 1:500 000 (de 1961). Utilização de Semi-transparências



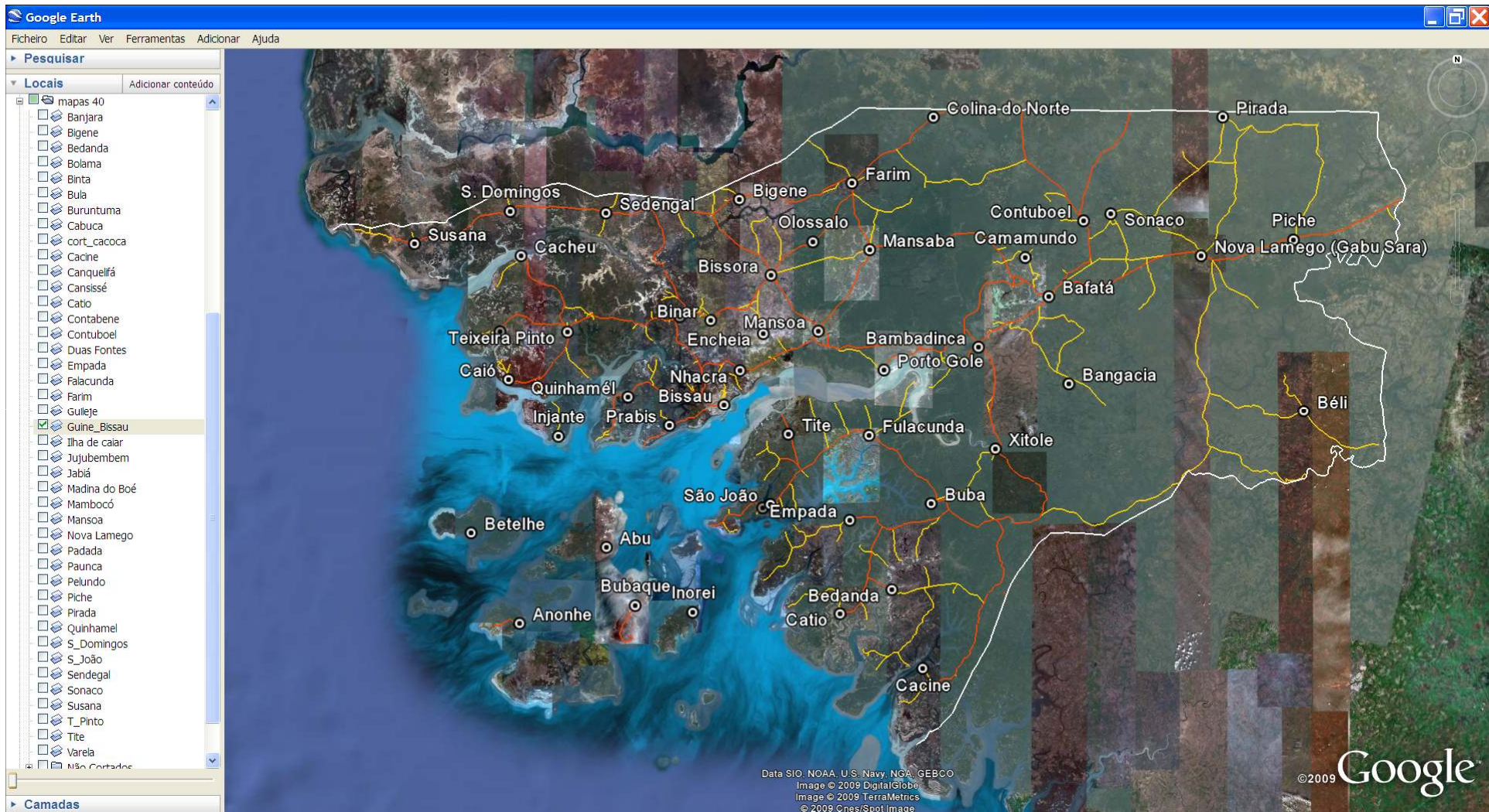
Cartografia 1:500 000 (de 1961). Utilização de Semi-transparências



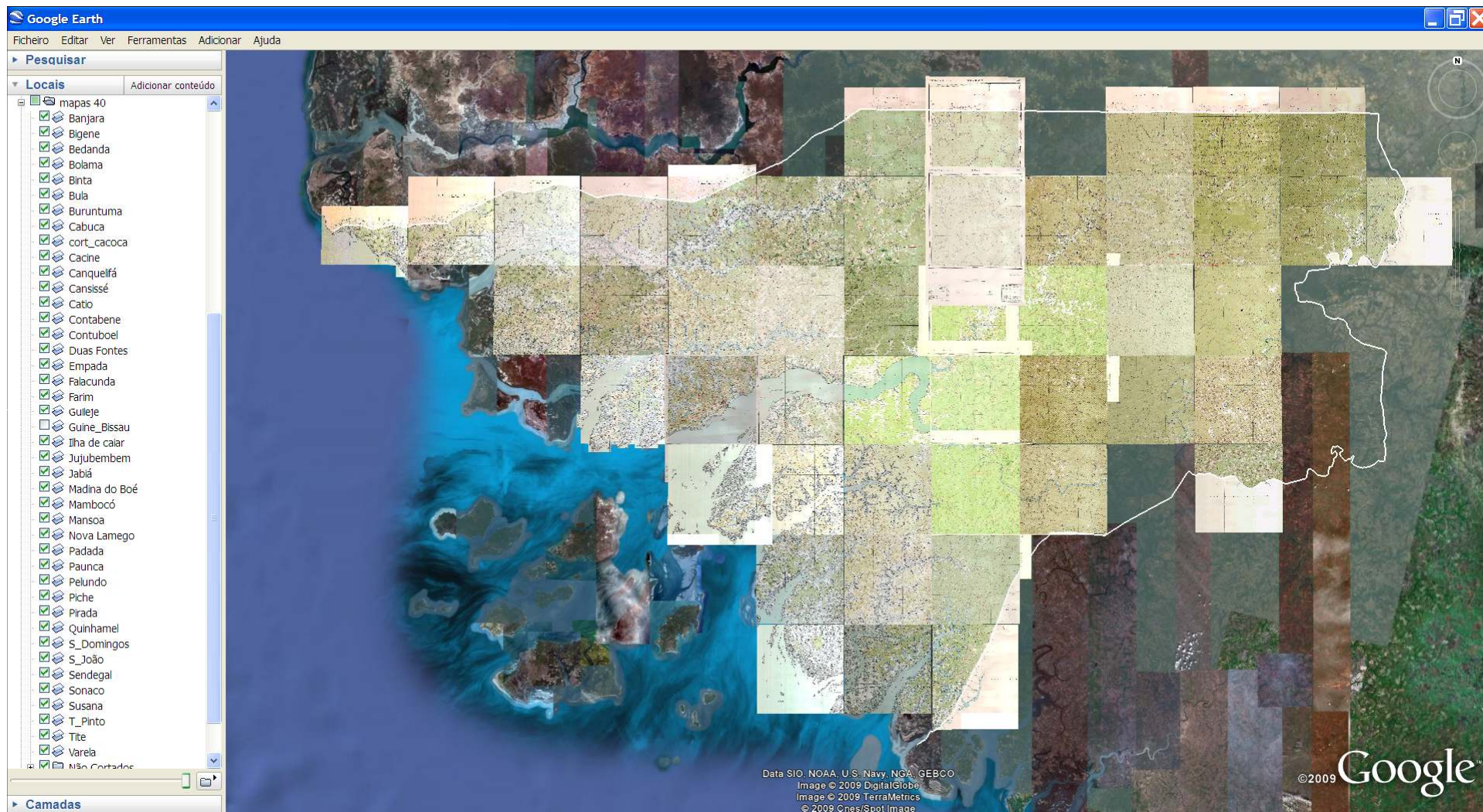
Cartografia 1:500 000 (de 1961). Utilização de Semi-transparências



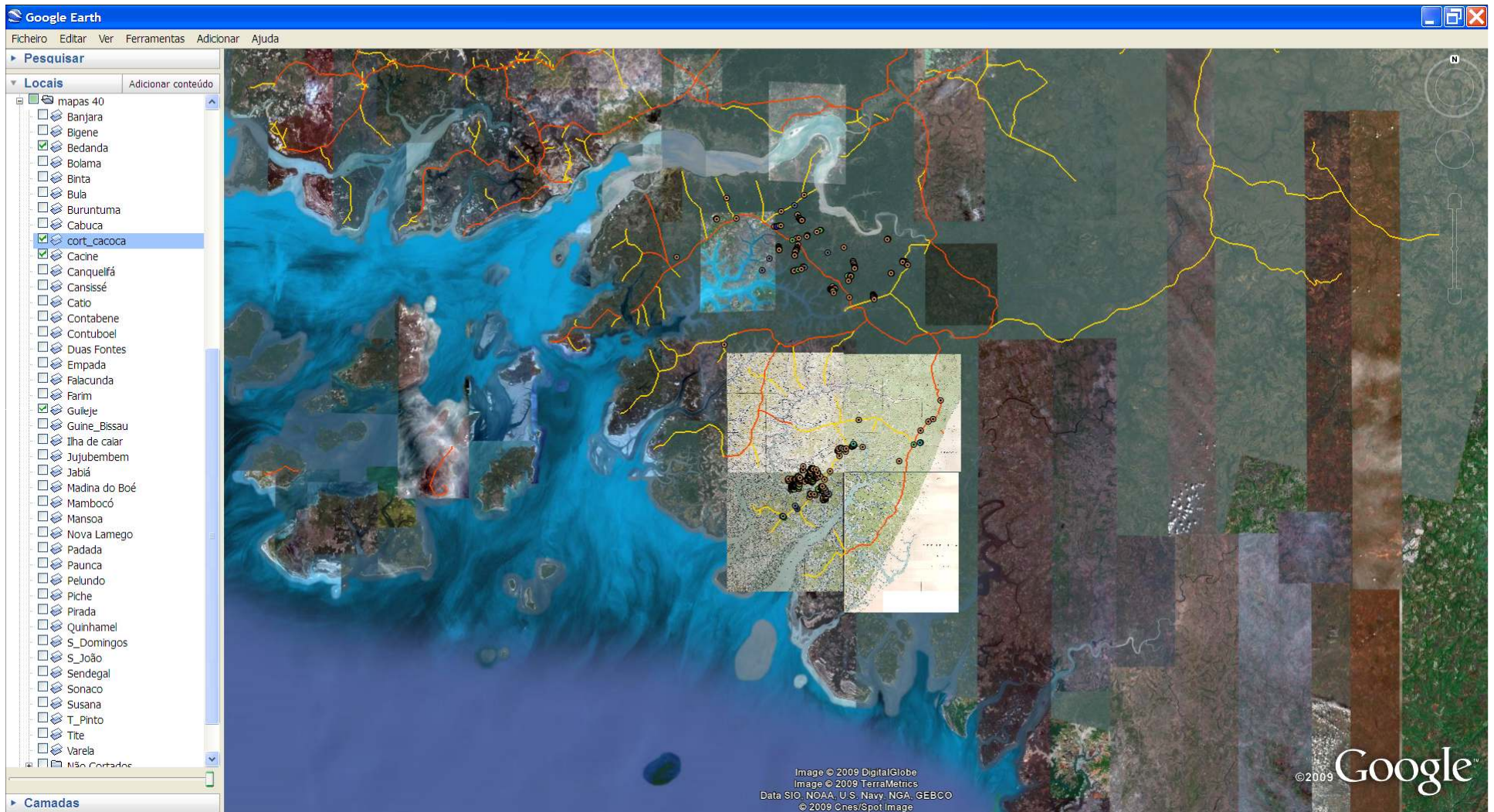
Cartografia 1:500 000 (de 1961). Utilização de Semi-transparências e vectorização de informação (toponímia)



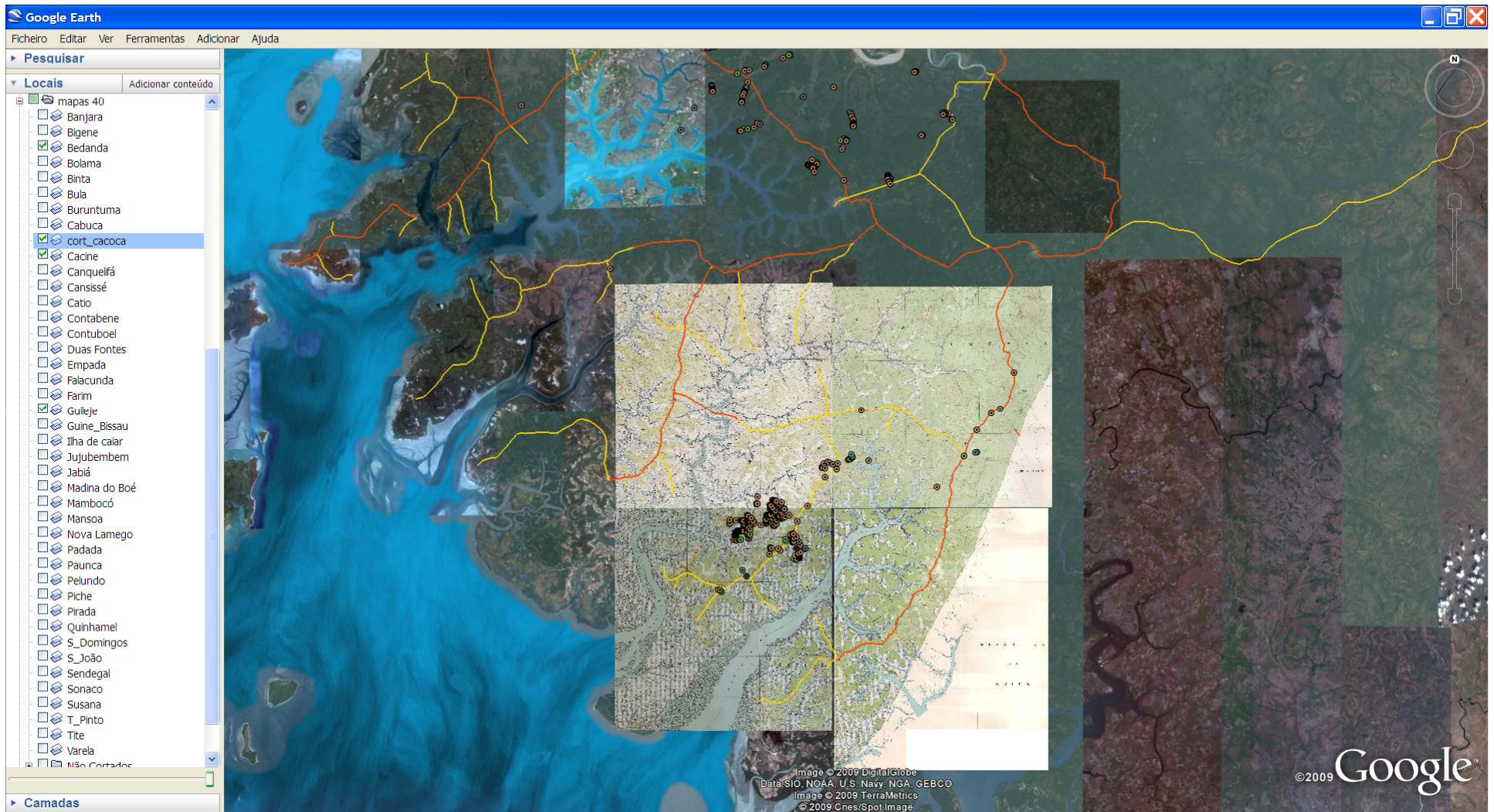
Visualização da informação vectorizada (fronteira, toponímia e rede viária)



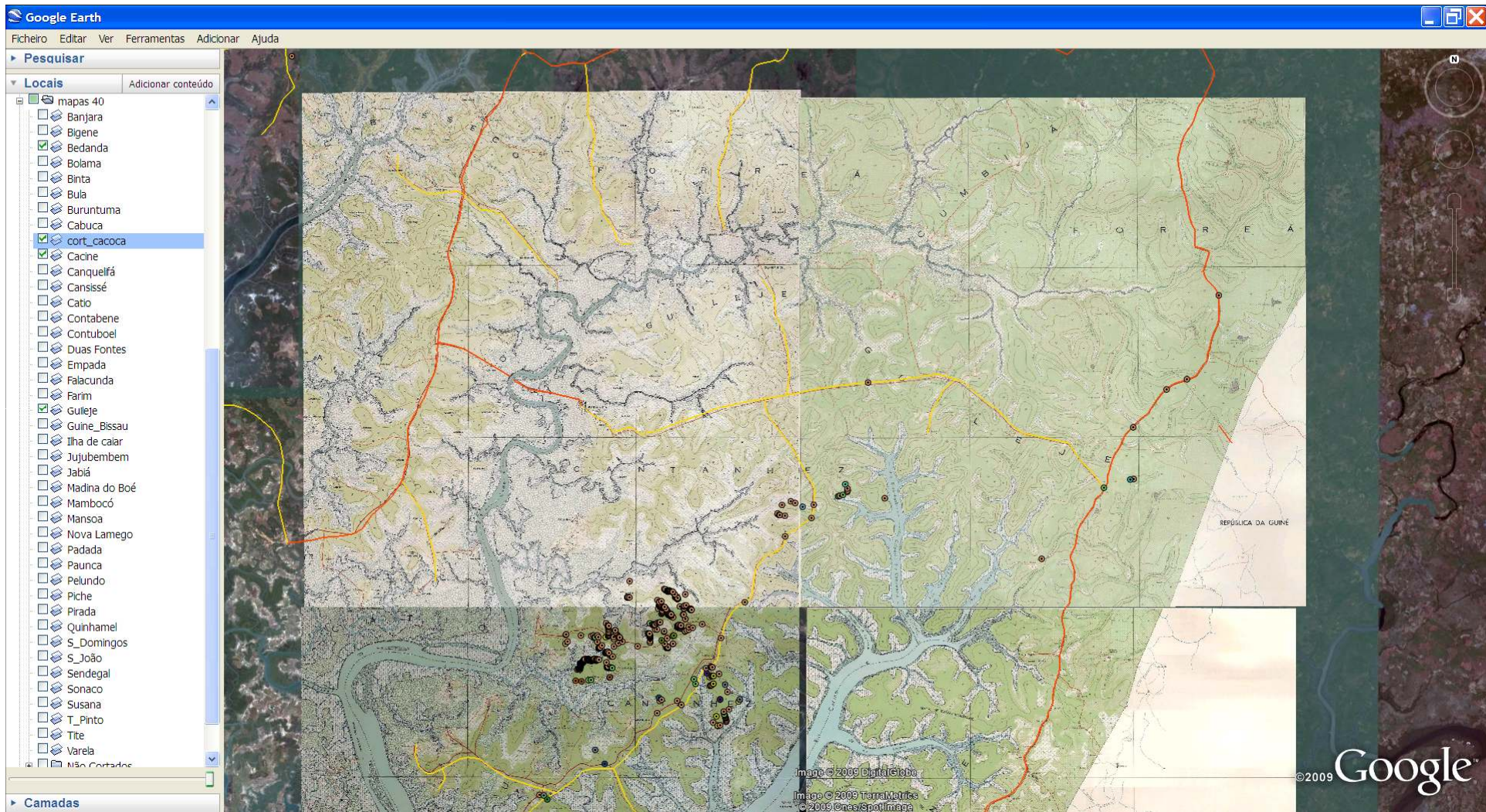
Mosaico da cartografia 1:50 000 (várias datas)



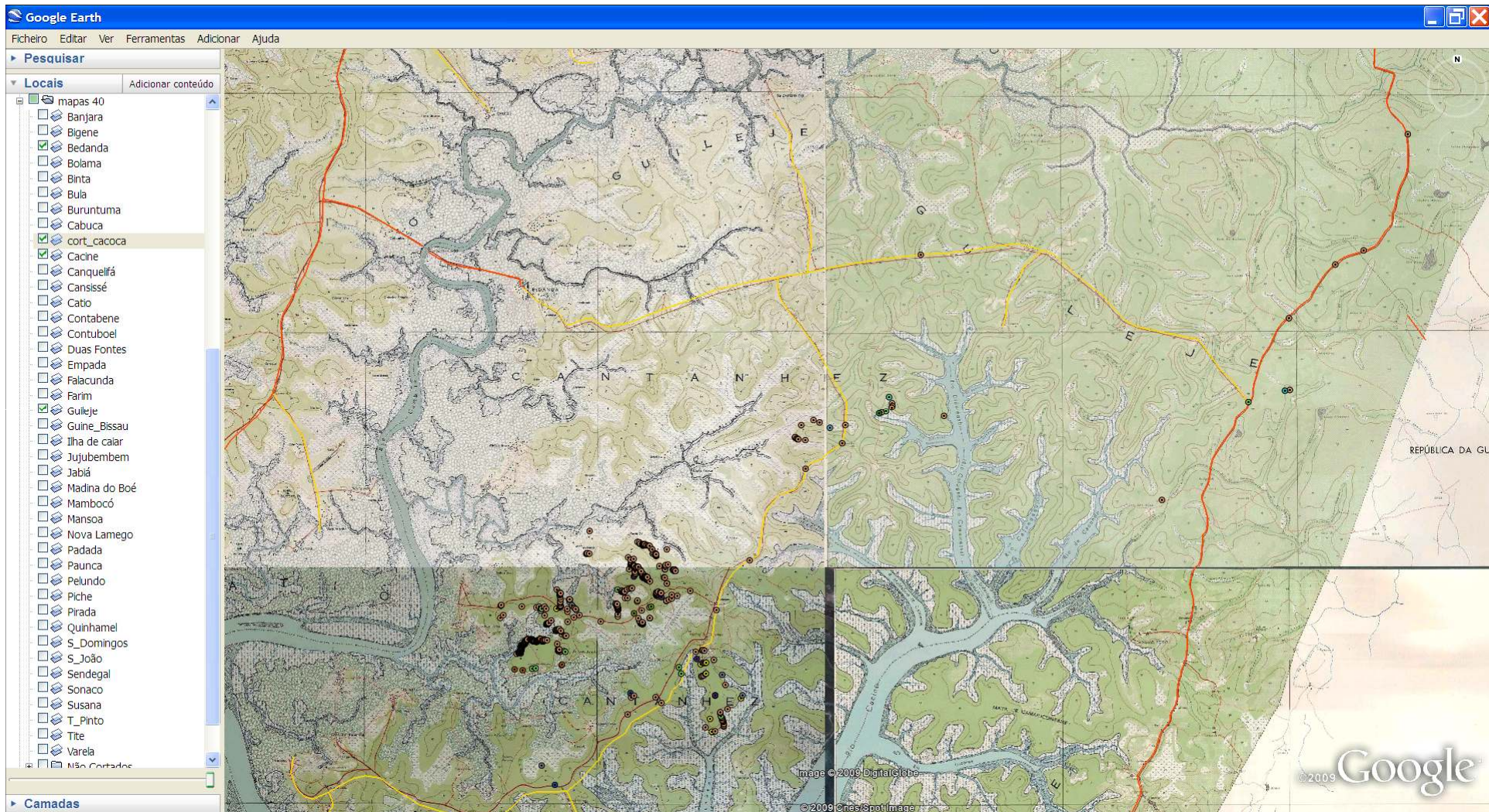
Cartografia 1:50 000 (várias datas), rede viária (1:500 000) e dados GPS (presença de símios). Zoom in



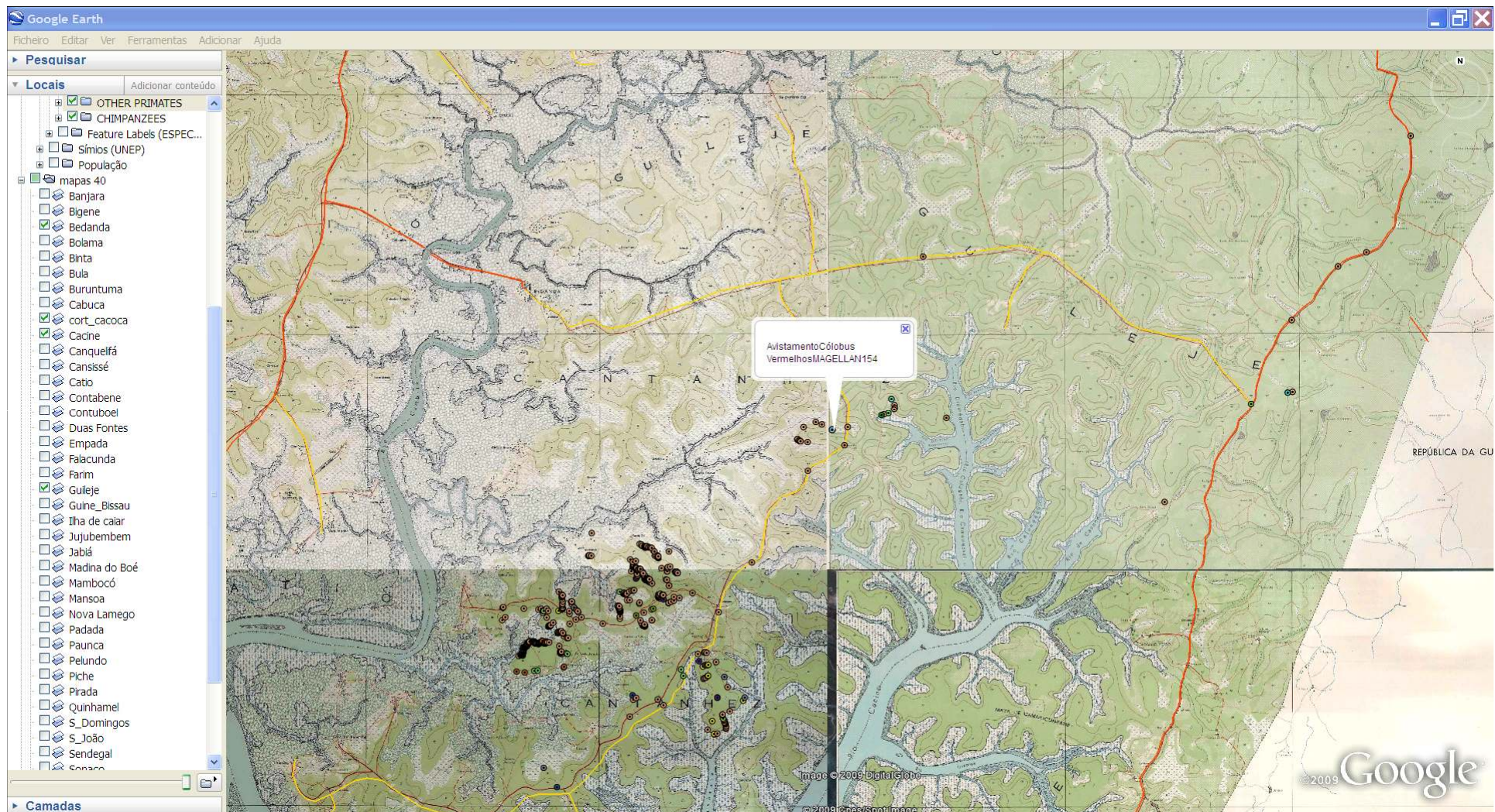
Cartografia 1:50 000 (várias datas) e a rede viária (1:500 000). Zoom in



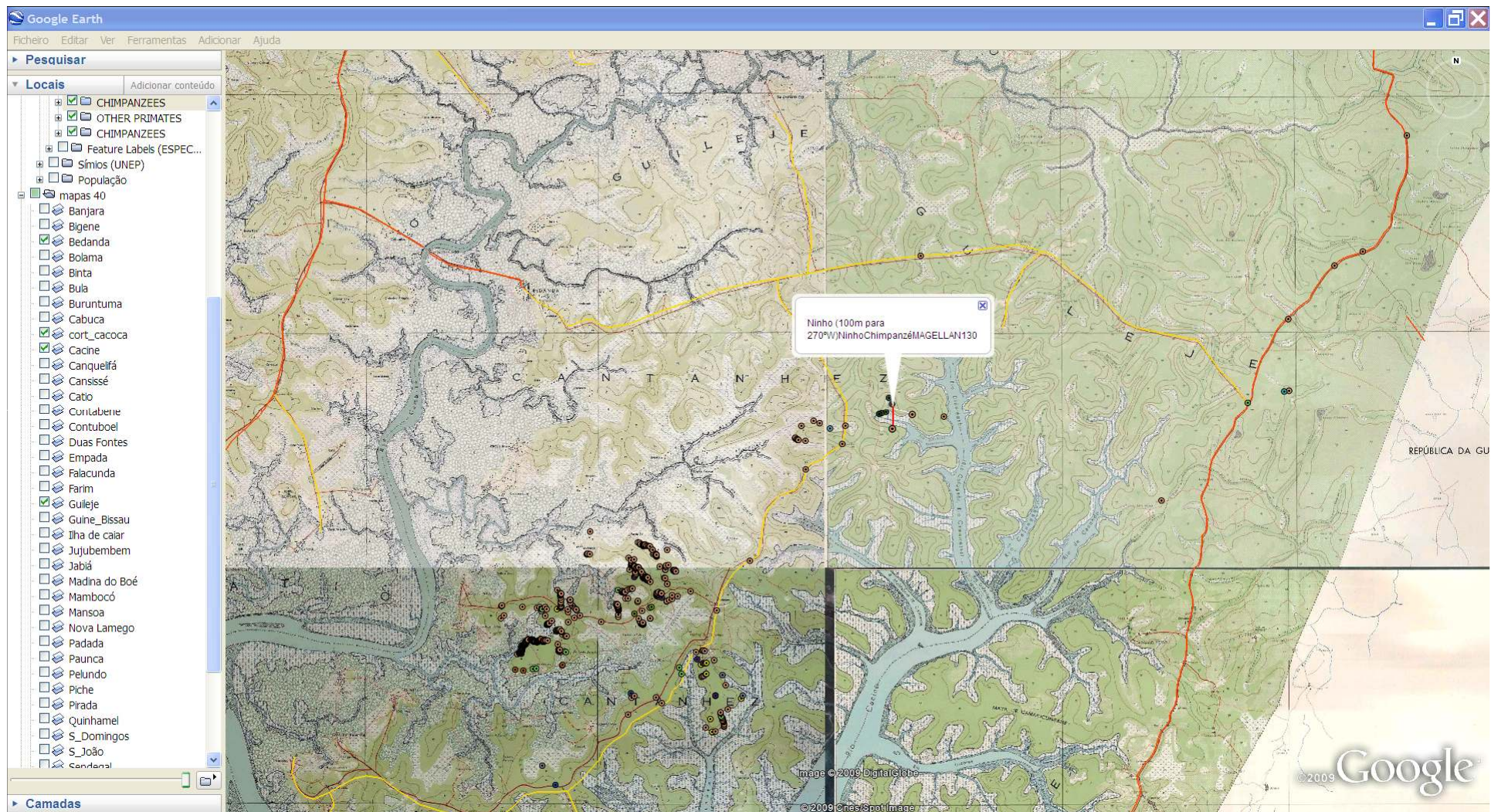
Cartografia 1:50 000 (várias datas) e a rede viária (1:500 000). Zoom in



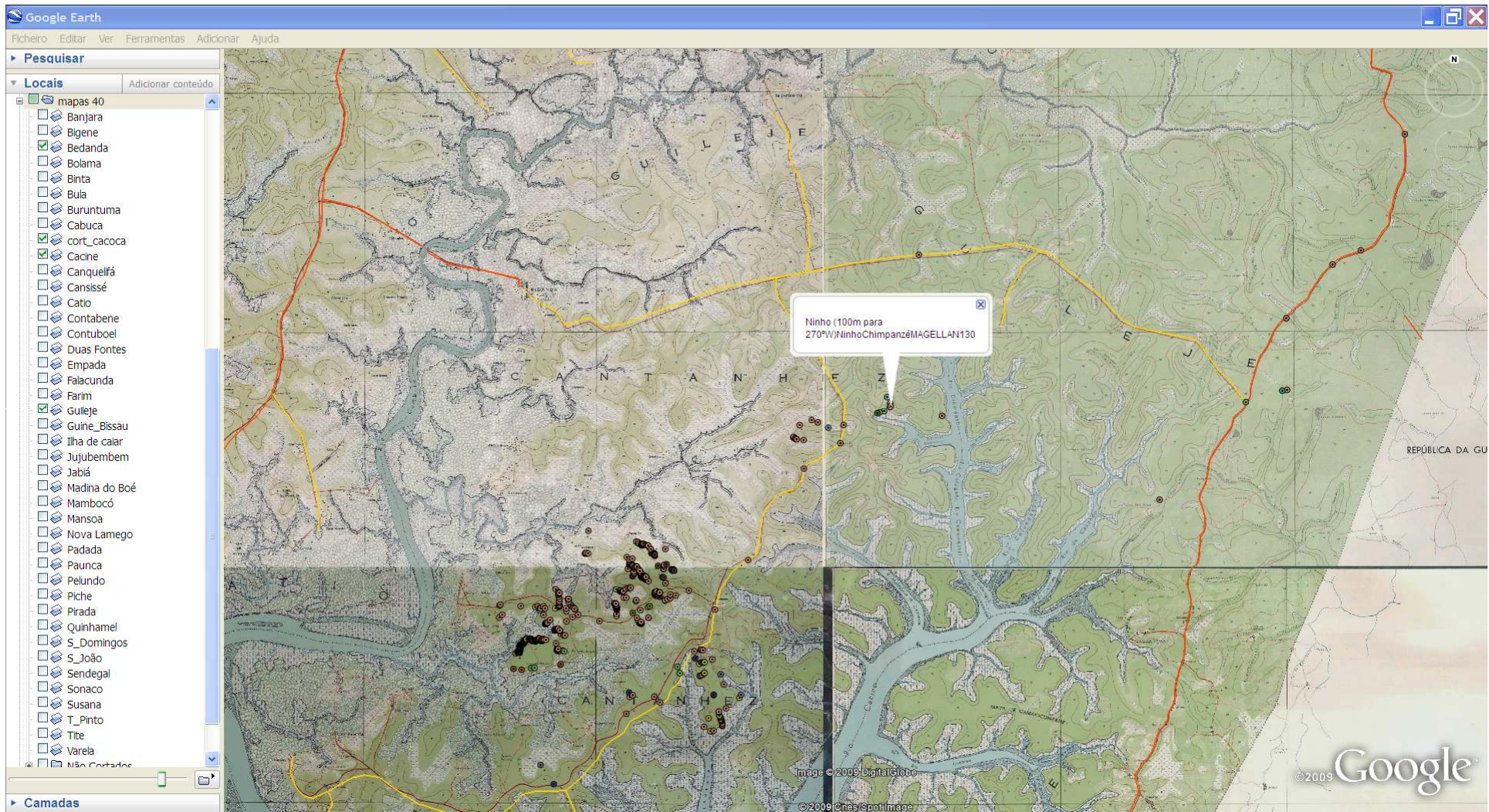
Cartografia 1:50 000, rede viária (1:500 000) e dados GPS (presença de Símios). Zoom in



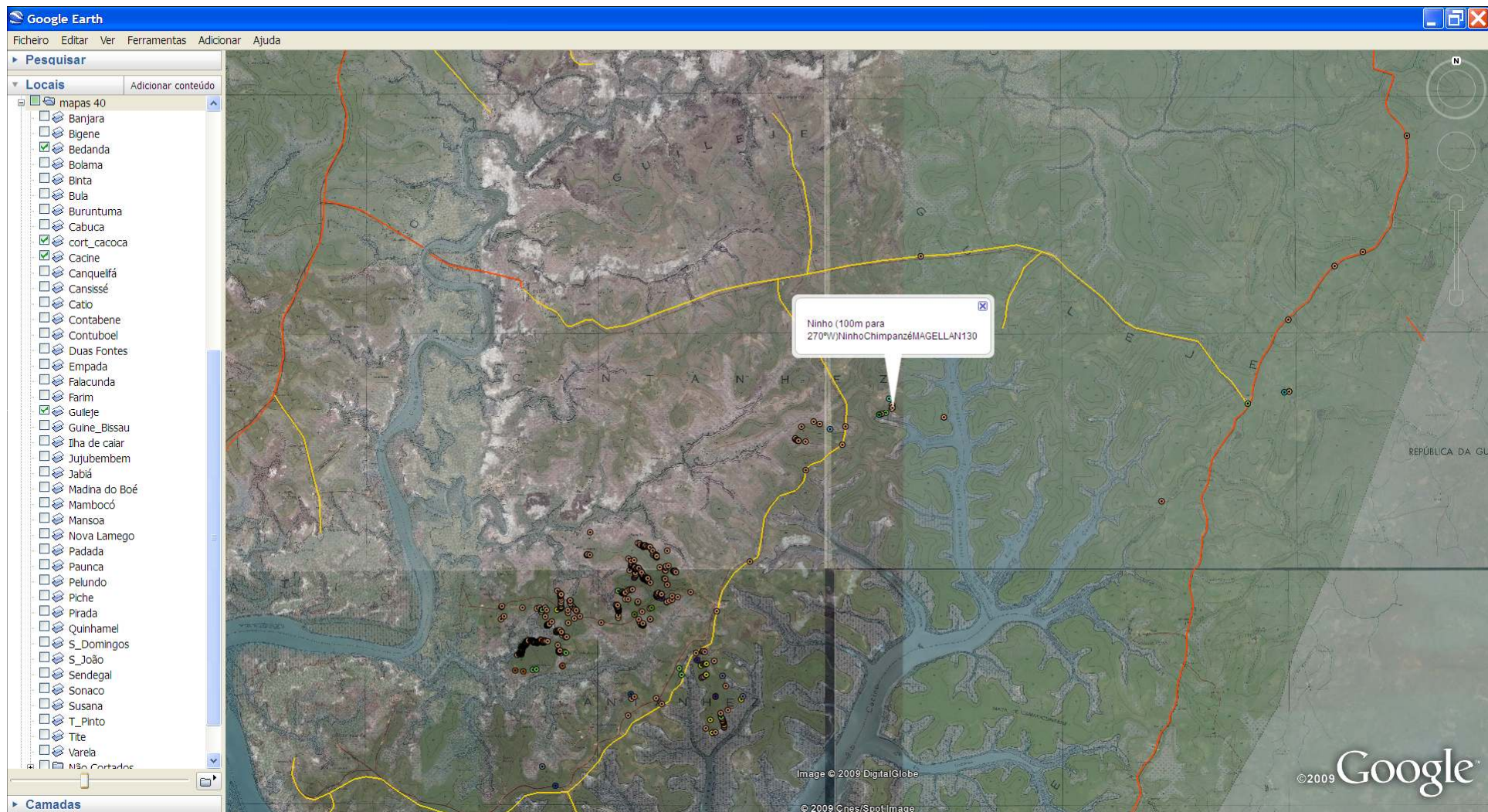
Cartografia 1:50 000, rede viária (1:500 000) e dados GPS (Informação alfanumérica associada)



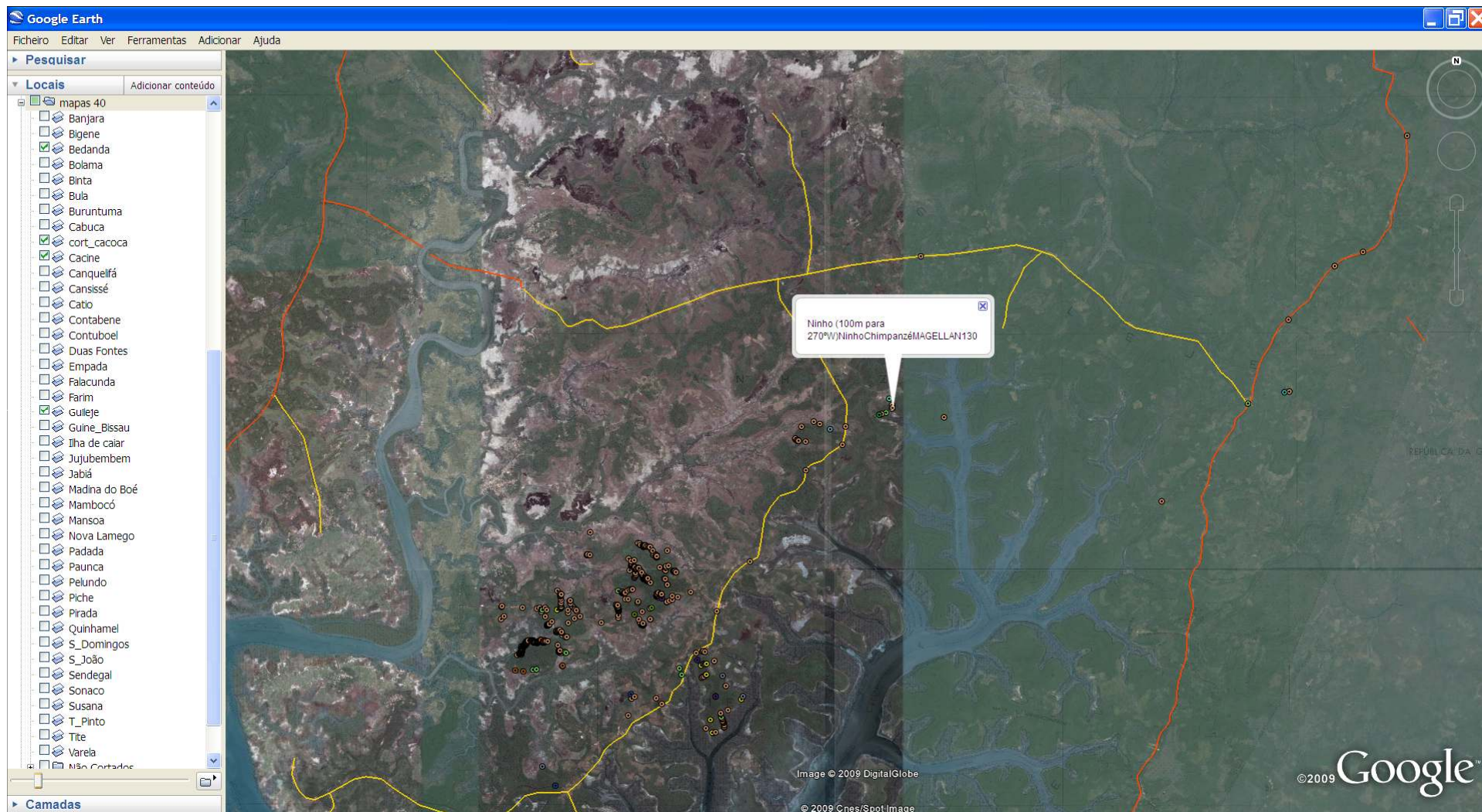
Cartografia 1:50 000, rede viária (1:500 000) e dados GPS (Informação alfanumérica associada)



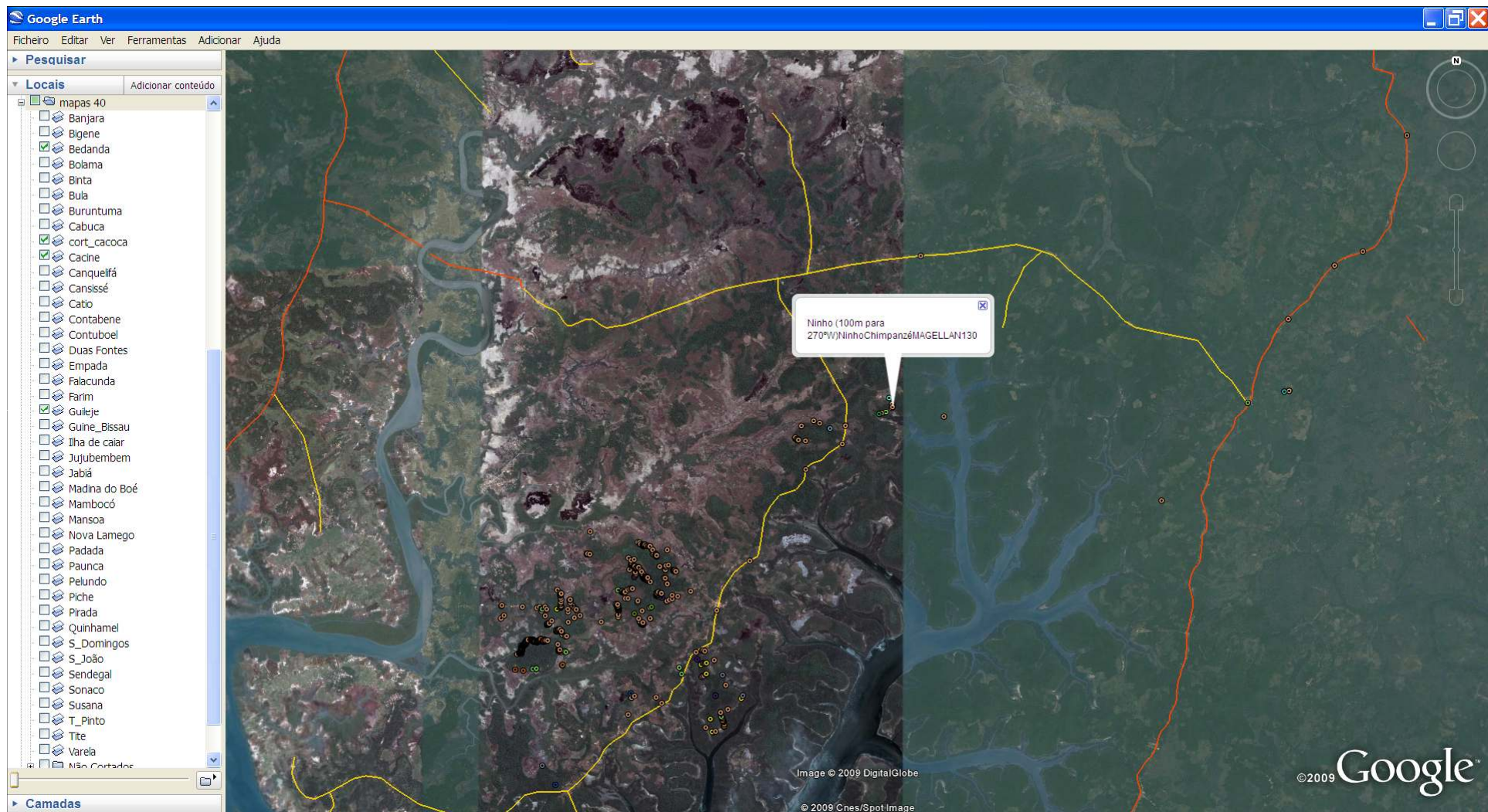
Cartografia 1:50 000 (Utilização de semi-transparências)



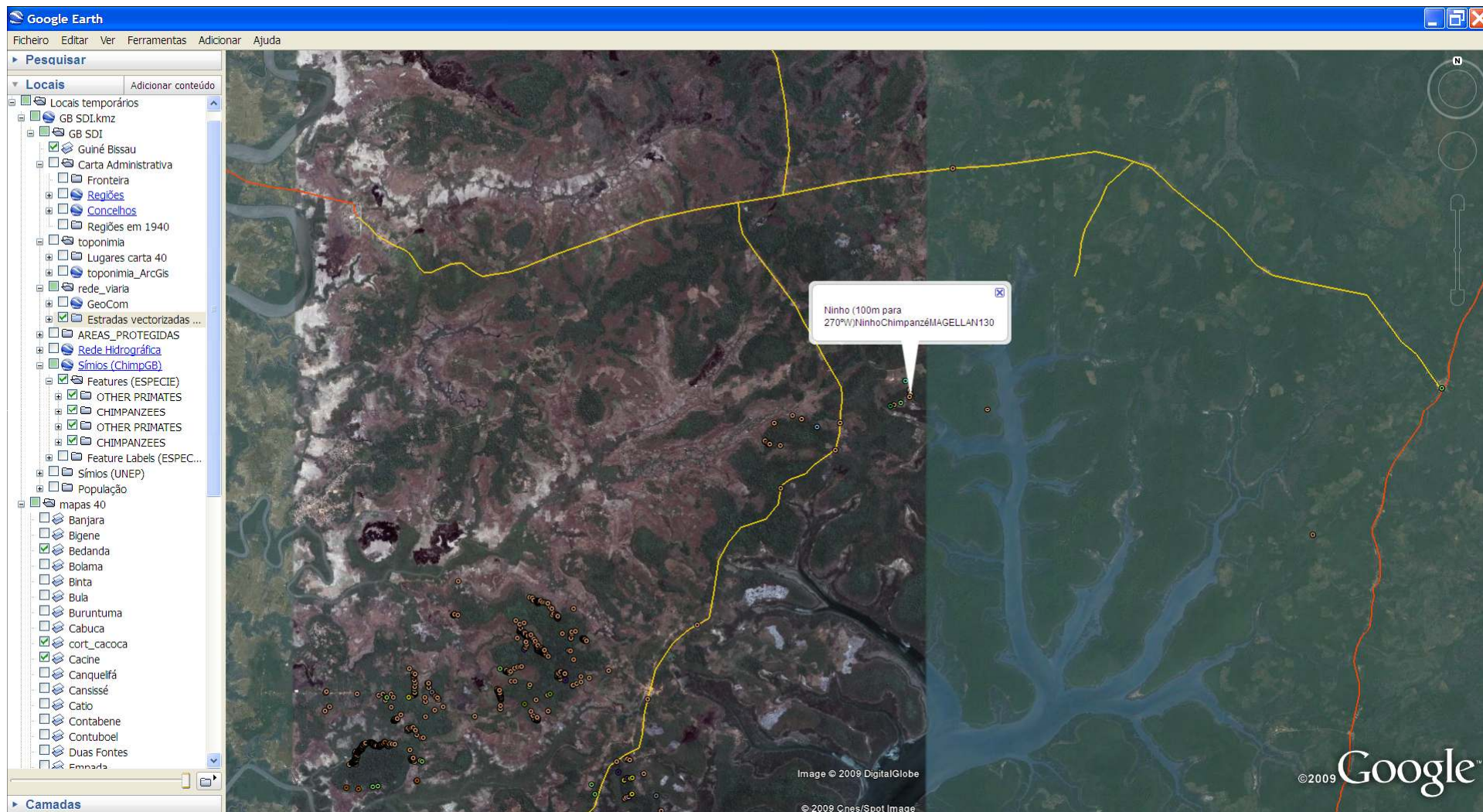
Cartografia 1:50 000 (Utilização de semi-transparências)



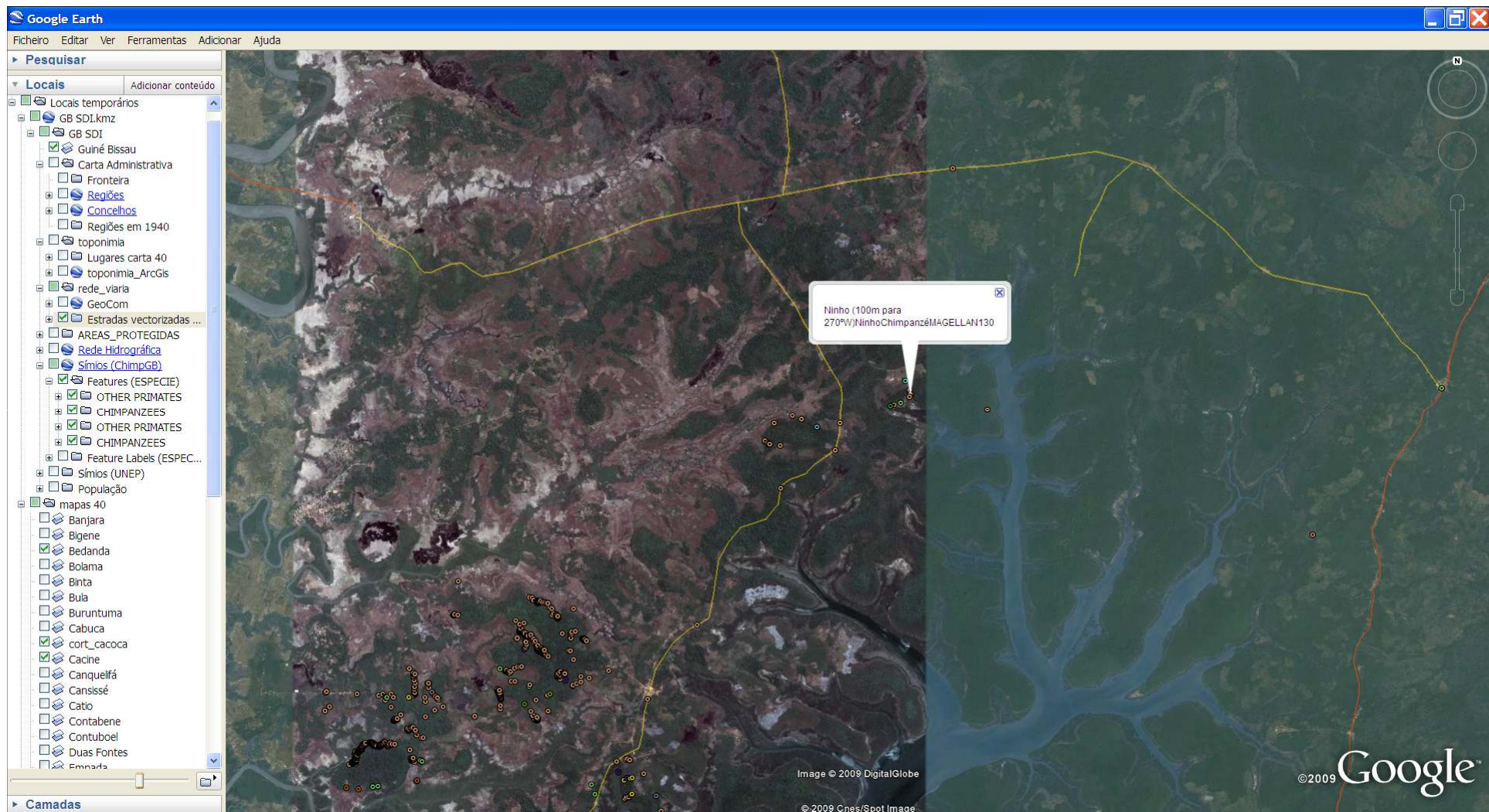
Cartografia 1:50 000 (Utilização de semi-transparências)



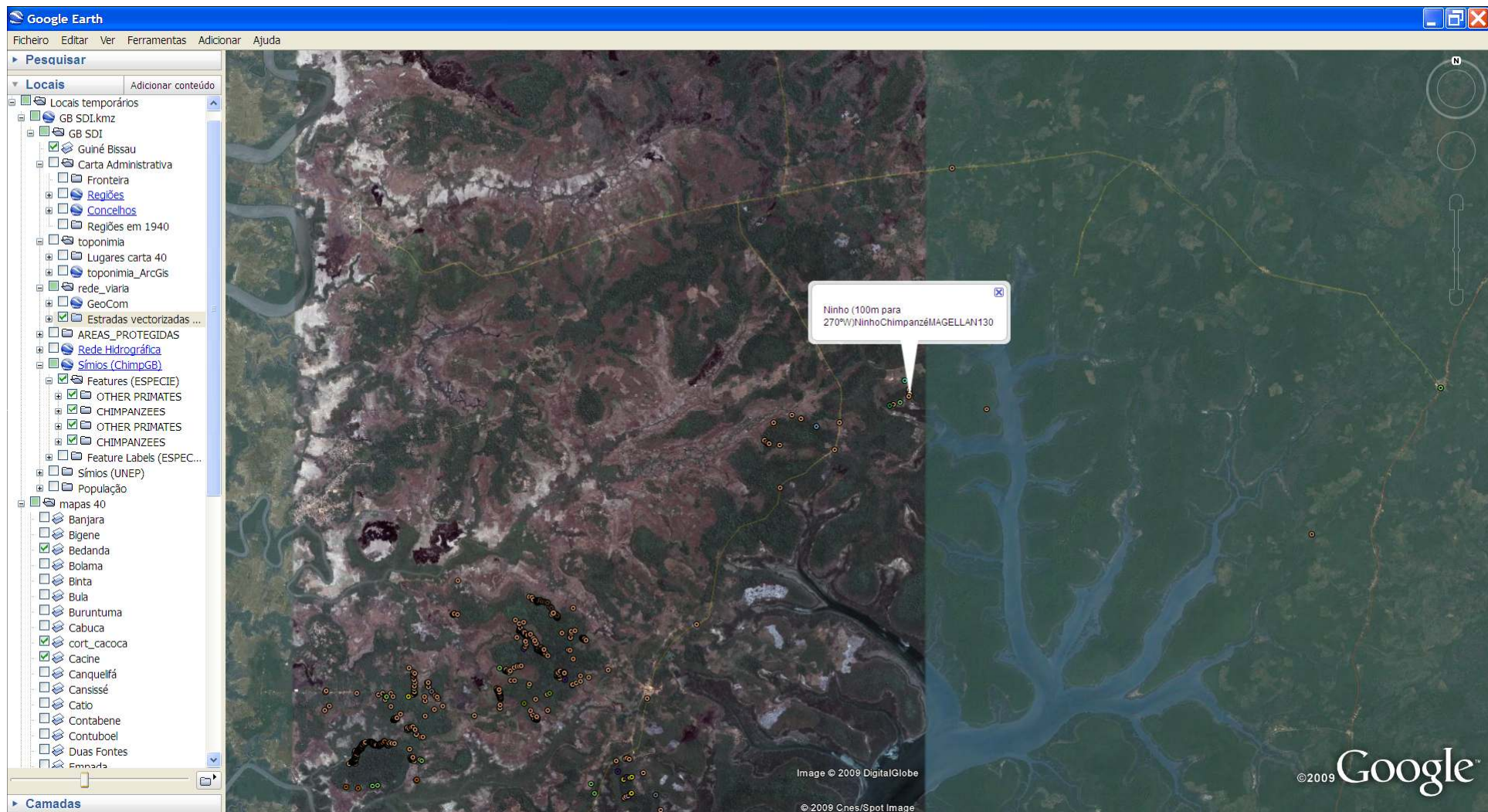
Rede viária (1:500 000), Presença de Símios e cartografia base do software Google Earth



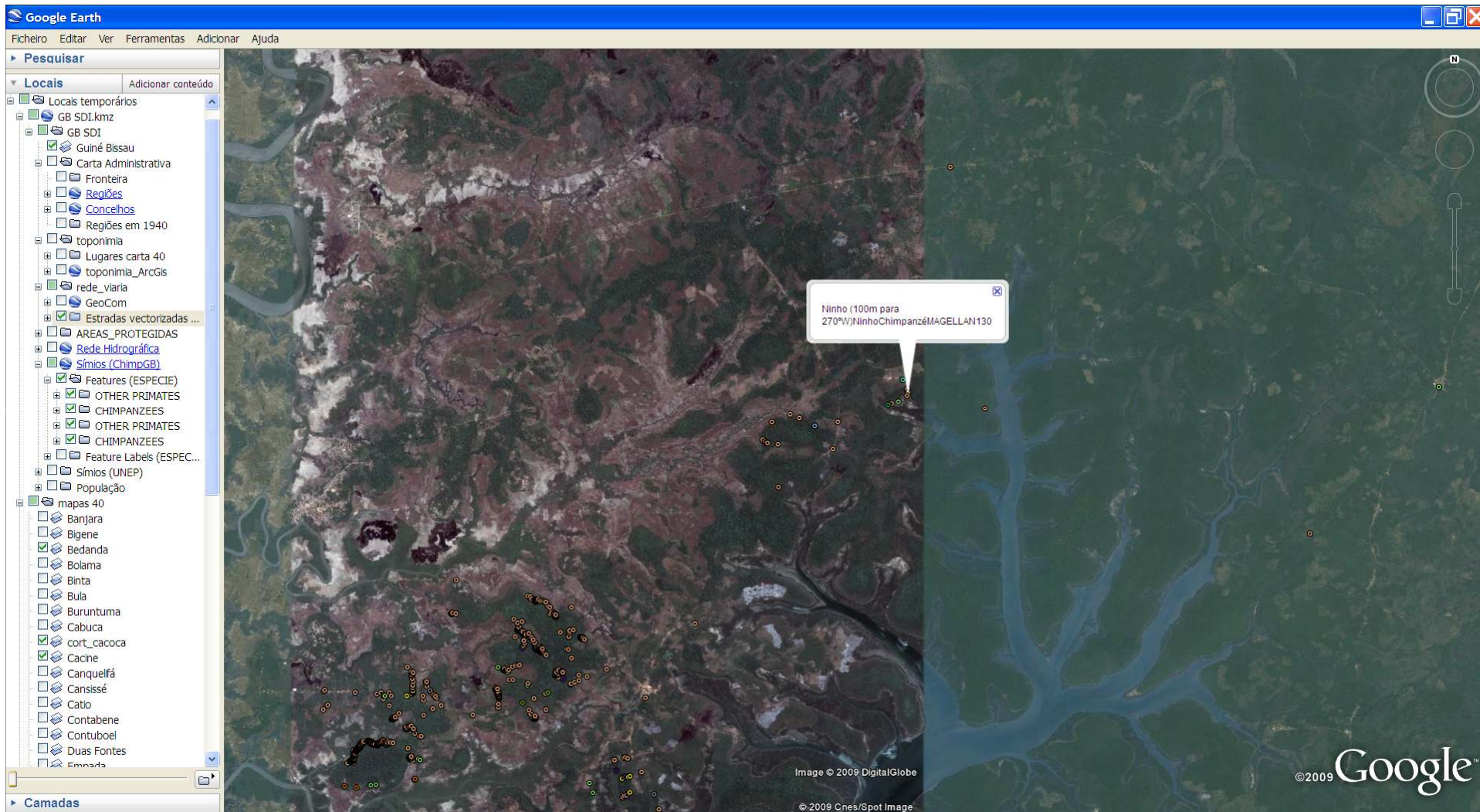
Presença de Símios e Rede viária (1:500 000). Utilização de semi-transparências



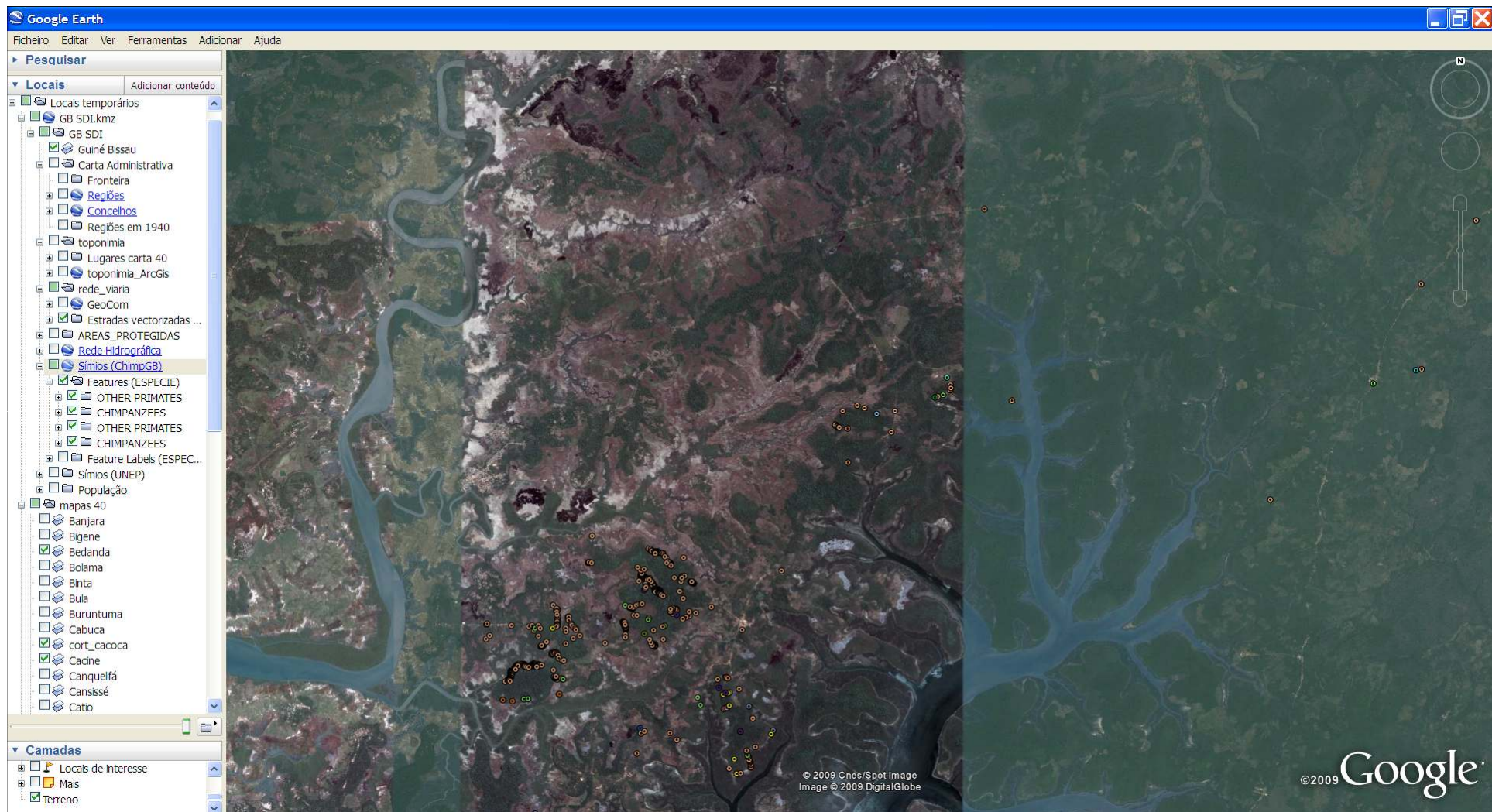
Presença de Símios e Rede viária (1:500 000). Utilização de semi-transparências



Presença de Símios e Rede viária (1:500 000). Utilização de semi-transparências



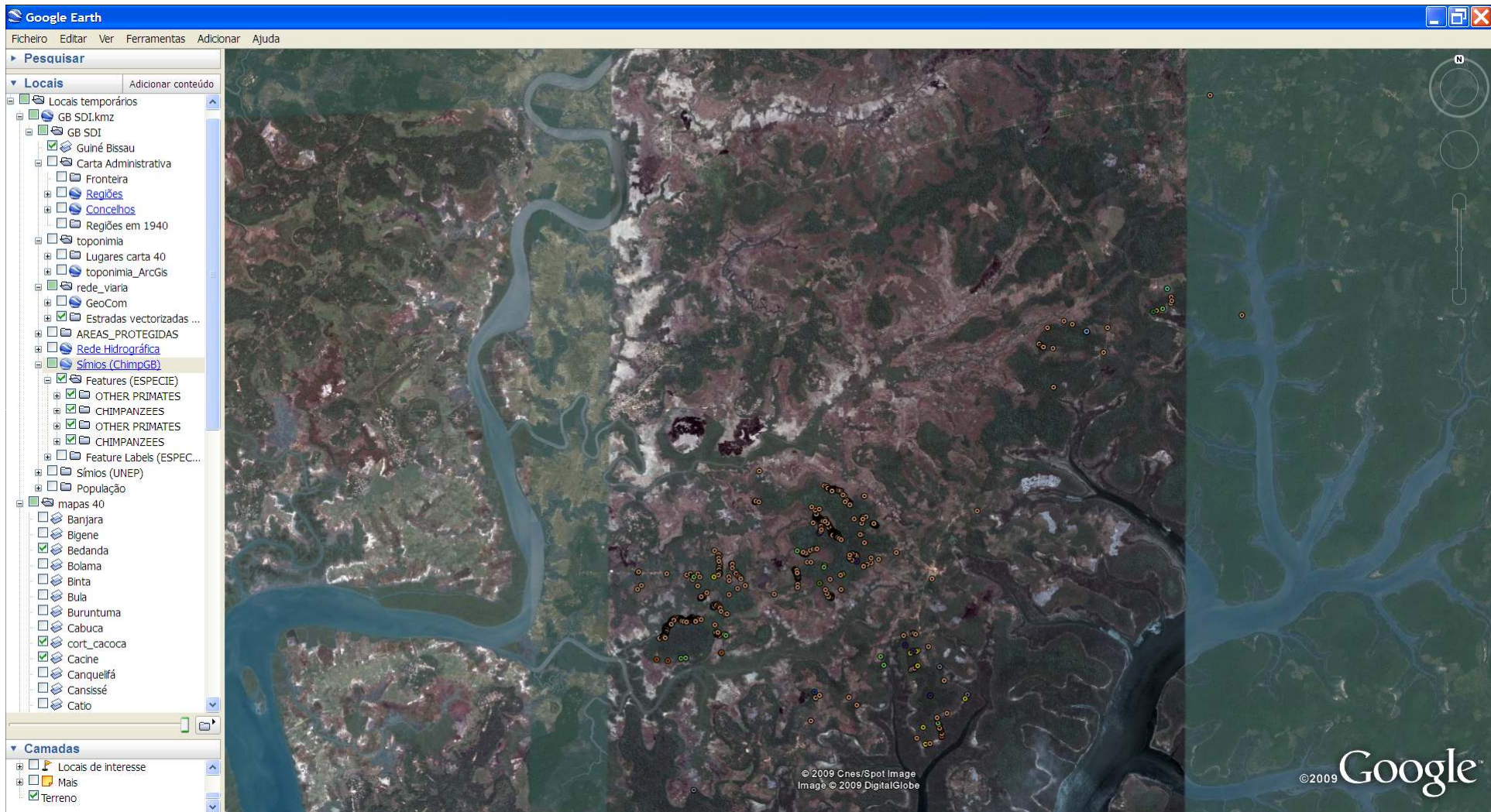
Presença de Símios



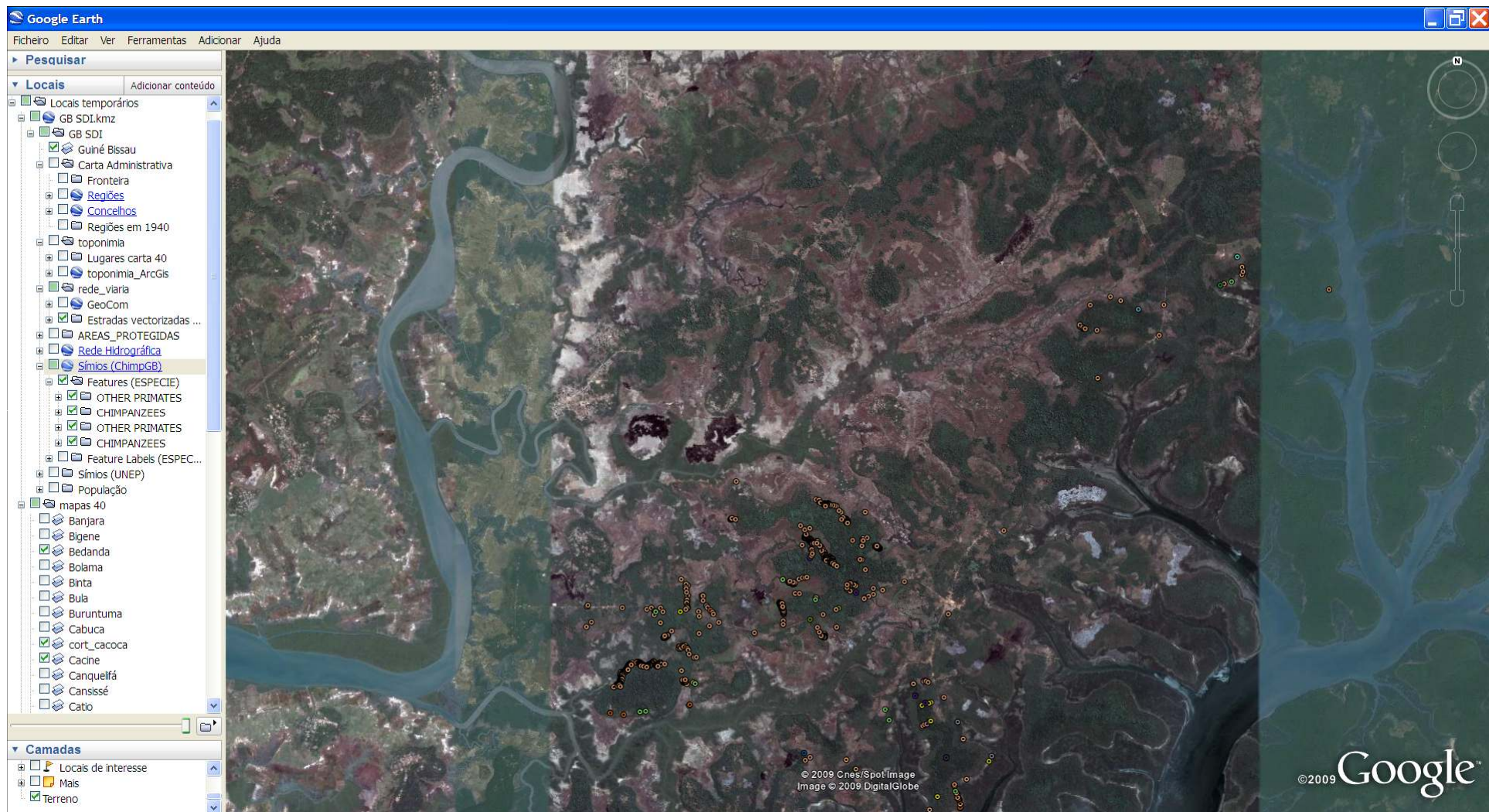
Presença de Símios e cartografia de base do software Google Earth (função pan)



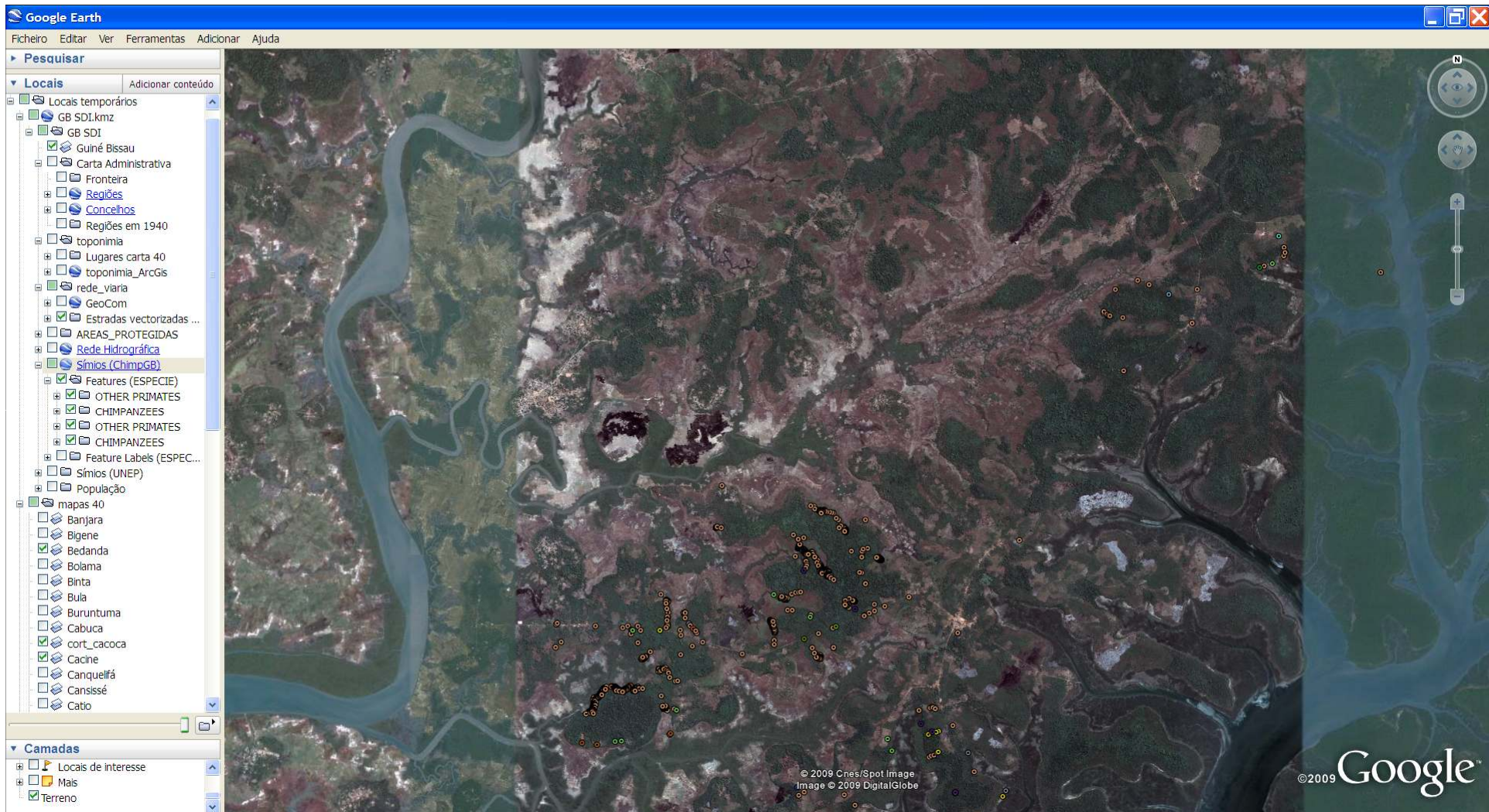
Presença de Símios e cartografia de base do software Google Earth (função pan)



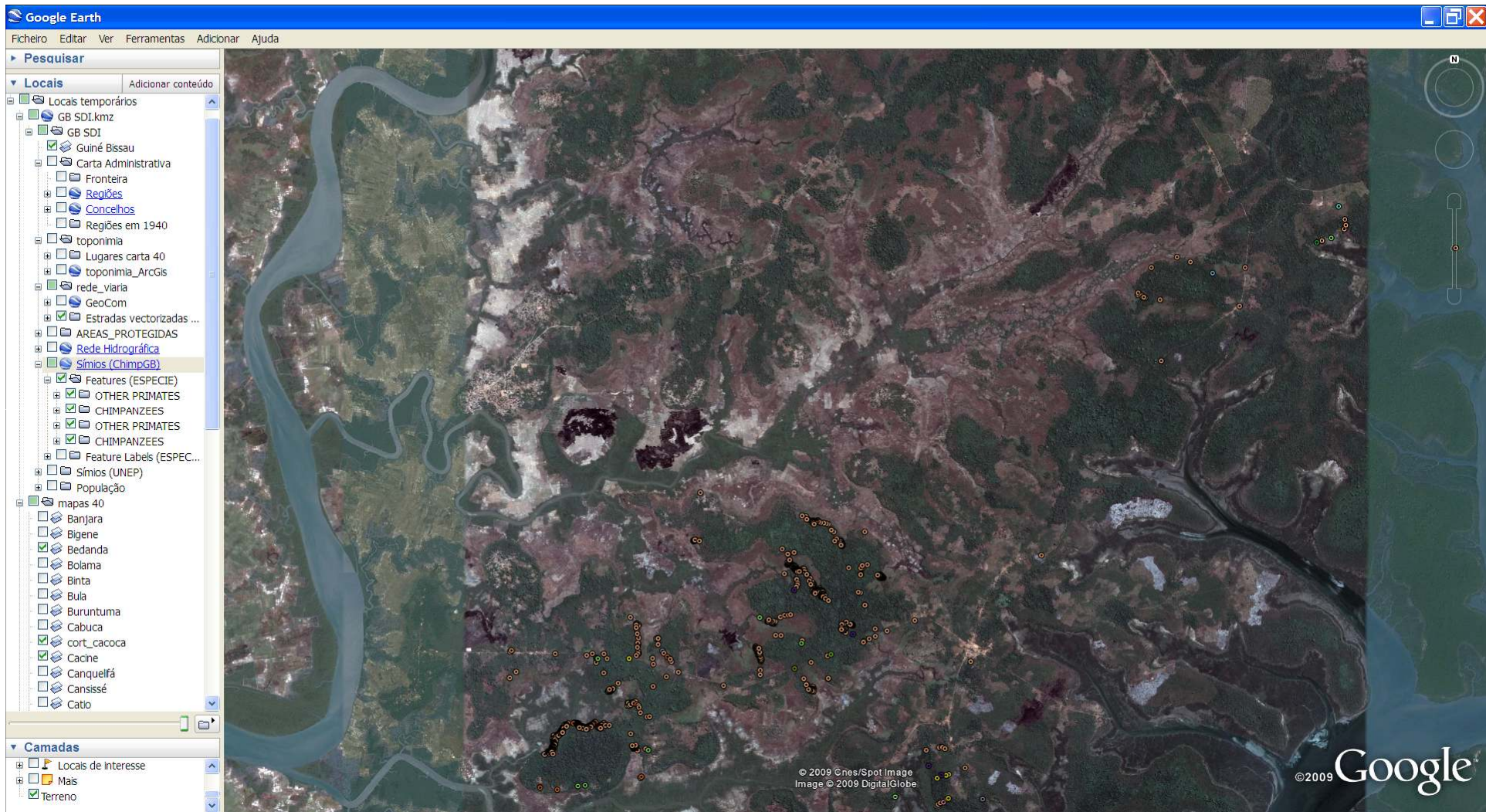
Presença de Símios e cartografia de base do software Google Earth (Zoom in)



Presença de Símios e cartografia de base do software Google Earth (Zoom in)



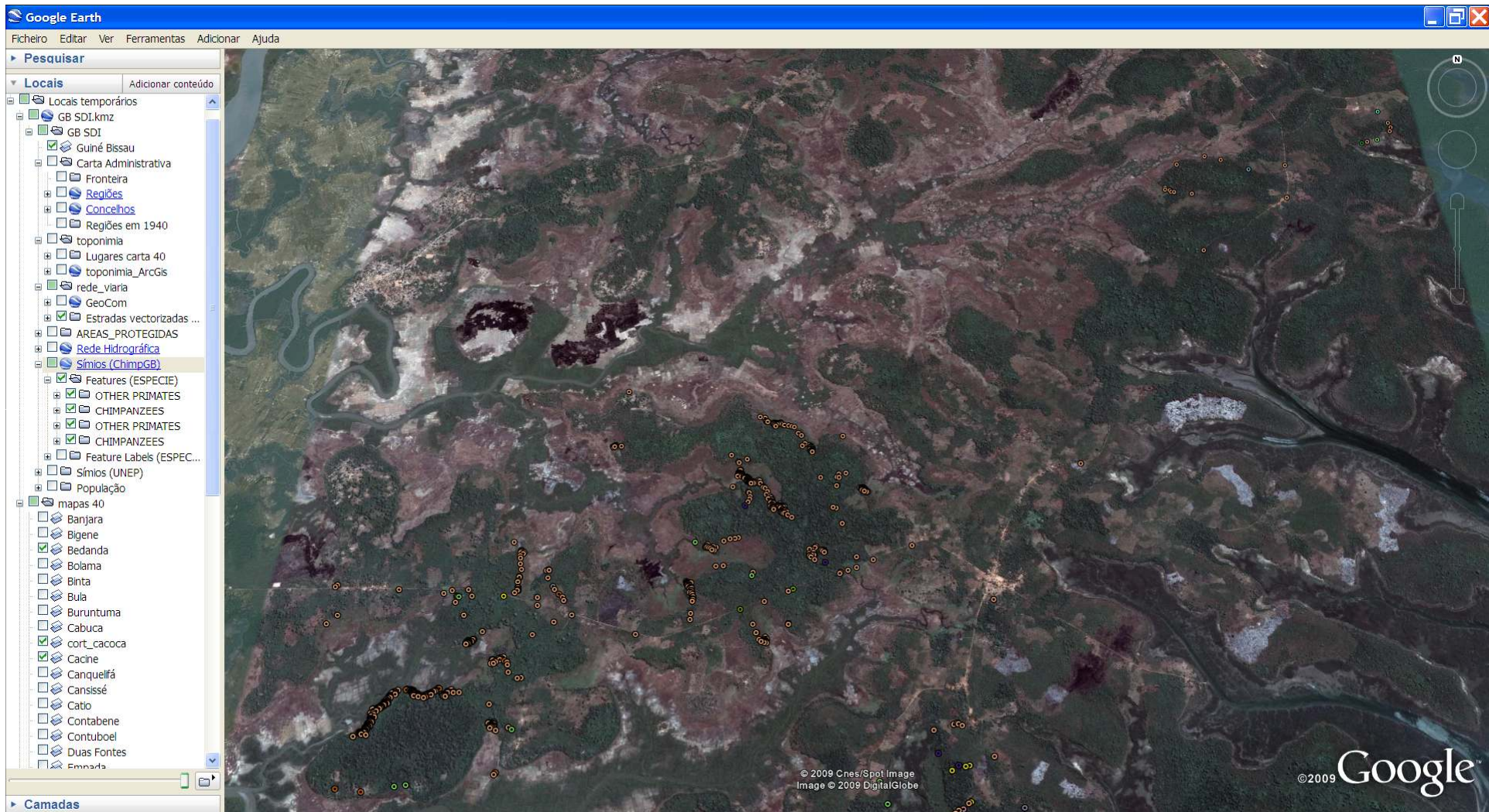
Presença de Símios e cartografia de base do software Google Earth (Zoom in)



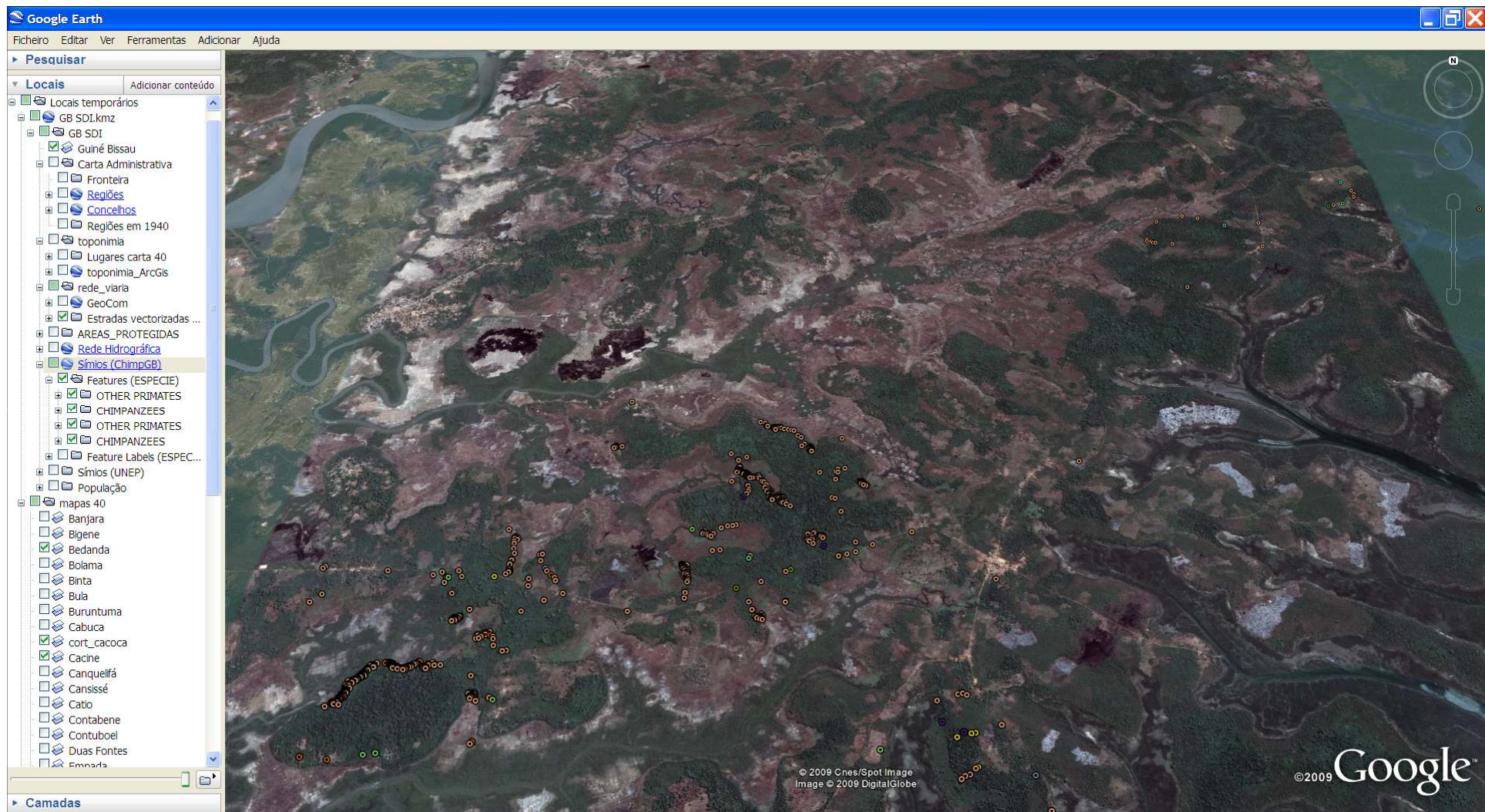
Presença de Símios e cartografia de base do software Google Earth (Zoom in)



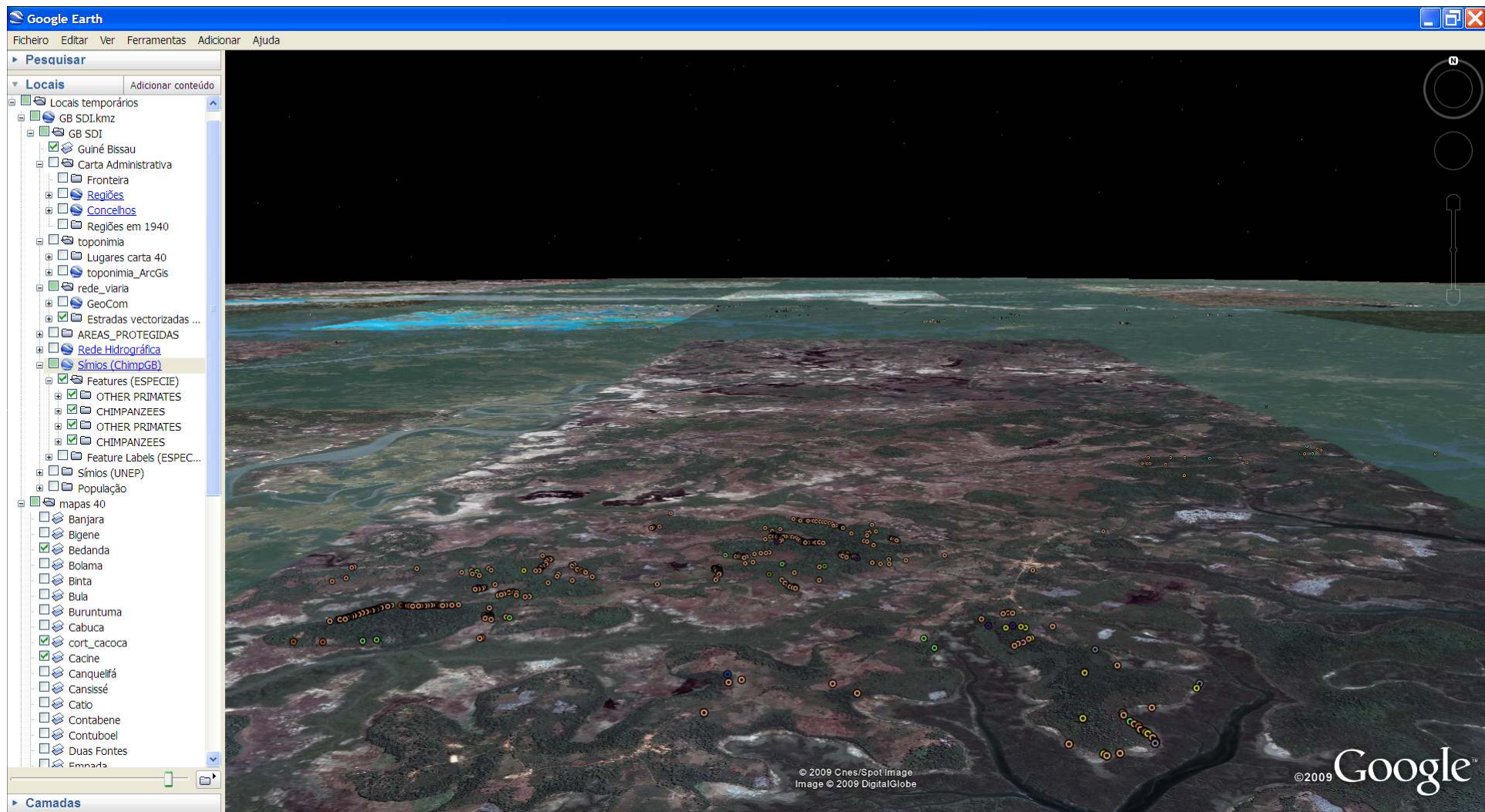
Presença de Símios e cartografia de base do software Google Earth (perspectiva oblíqua)



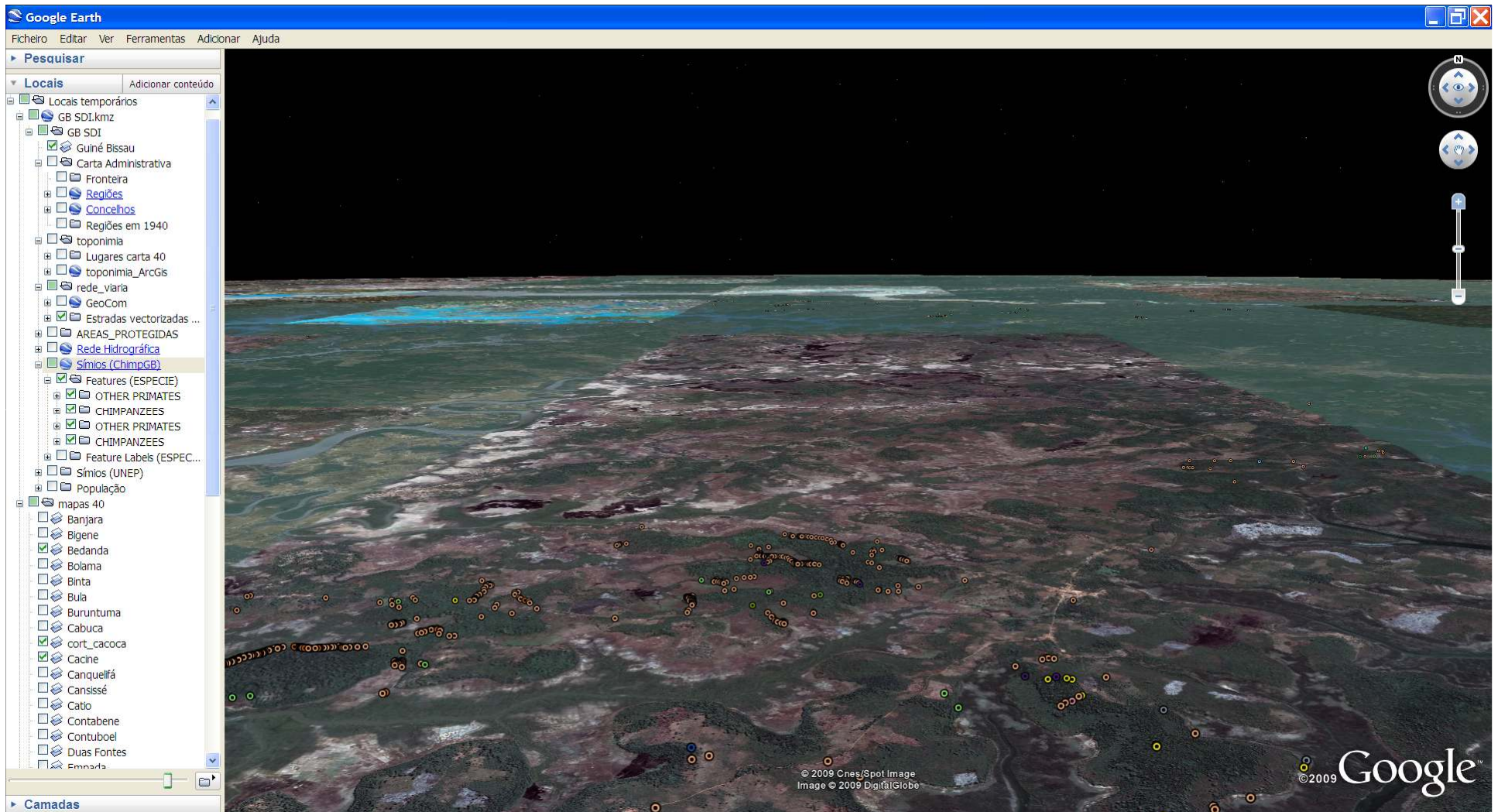
Presença de Símios e cartografia de base do software Google Earth (perspectiva oblíqua)



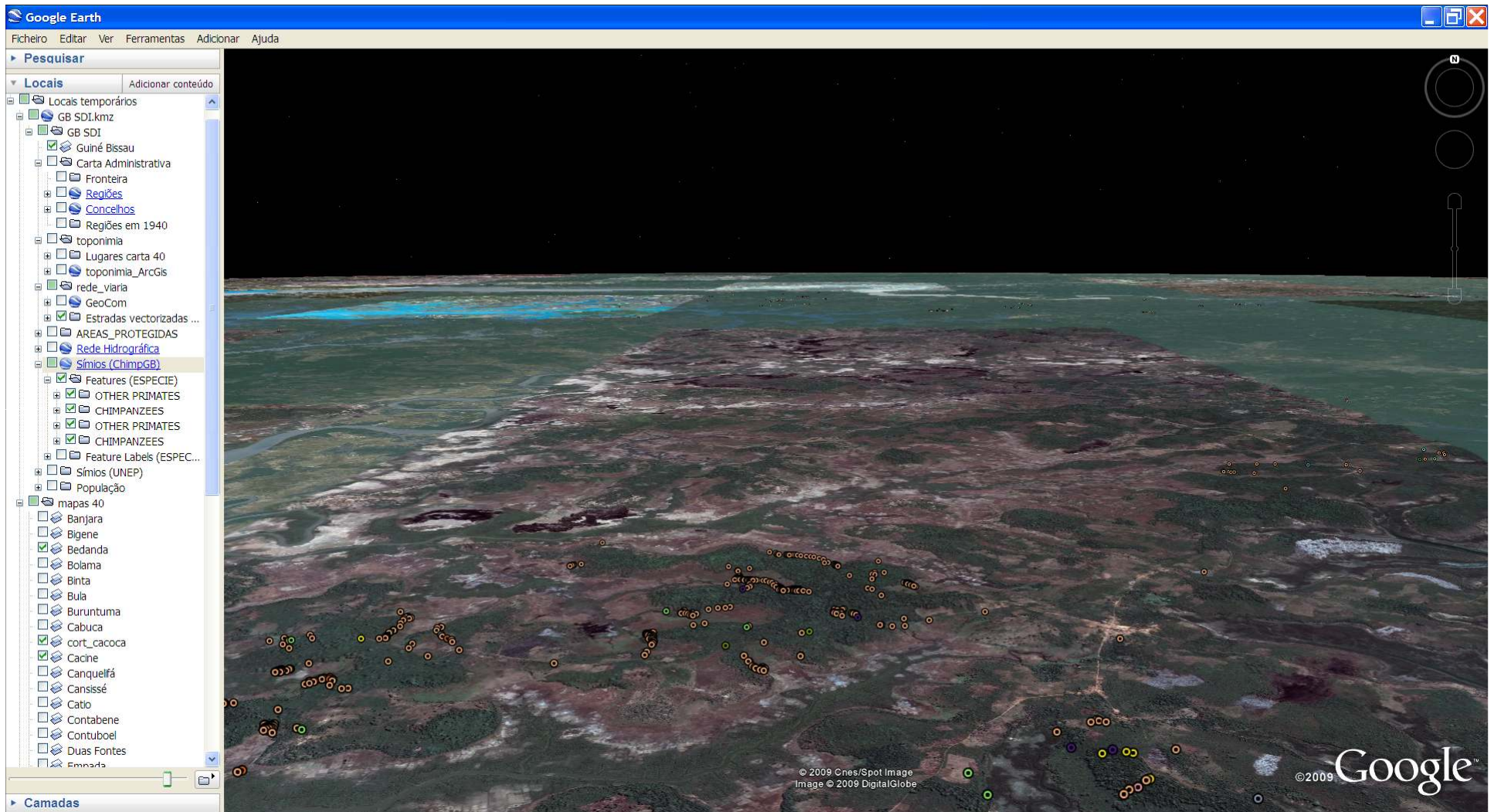
Presença de Símios e cartografia de base do software Google Earth (perspectiva oblíqua)



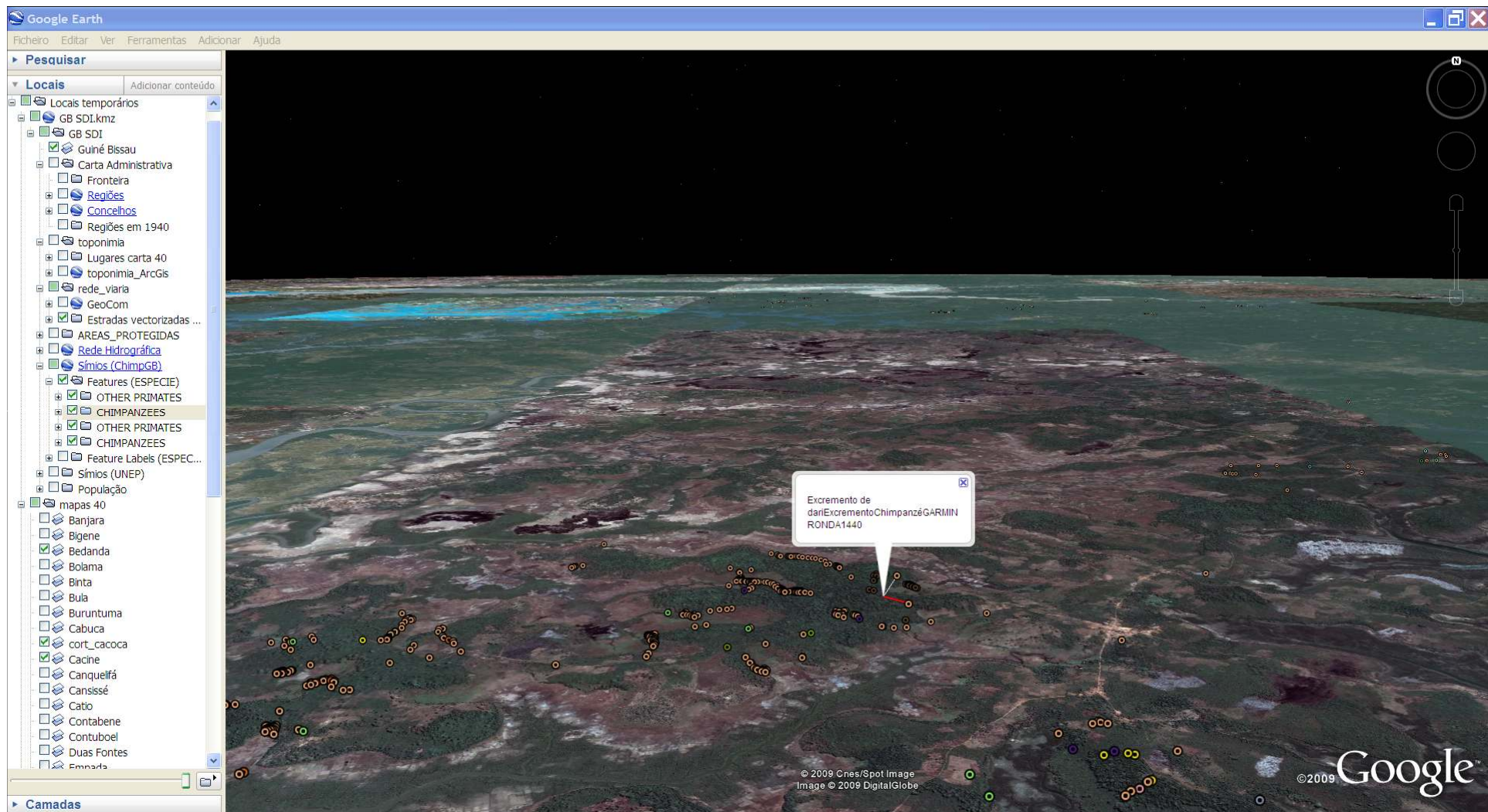
Presença de Símios e cartografia de base do software Google Earth (perspectiva oblíqua)



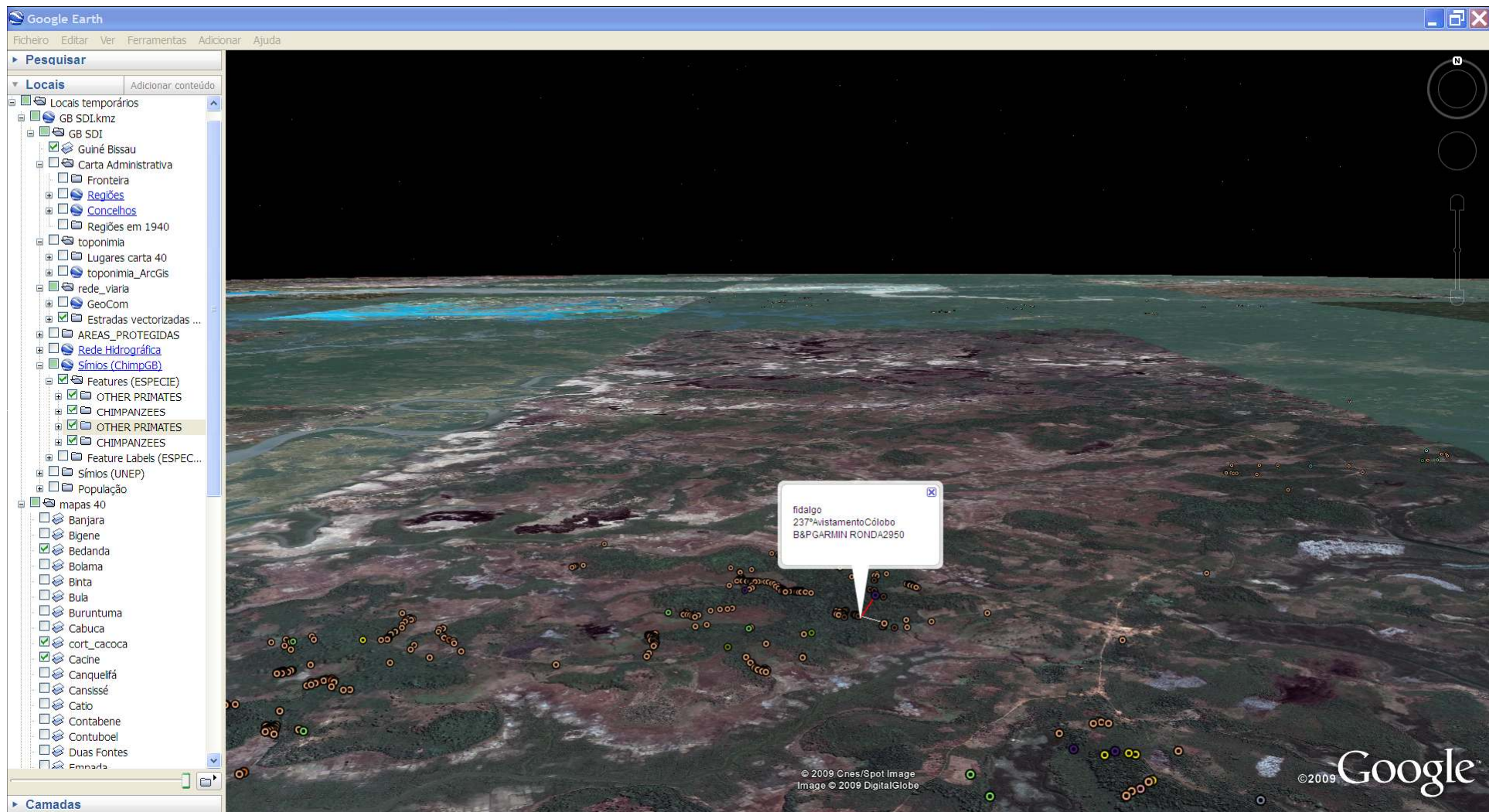
Presença de Símios e cartografia de base do software Google Earth (perspectiva oblíqua e zoom *in*)



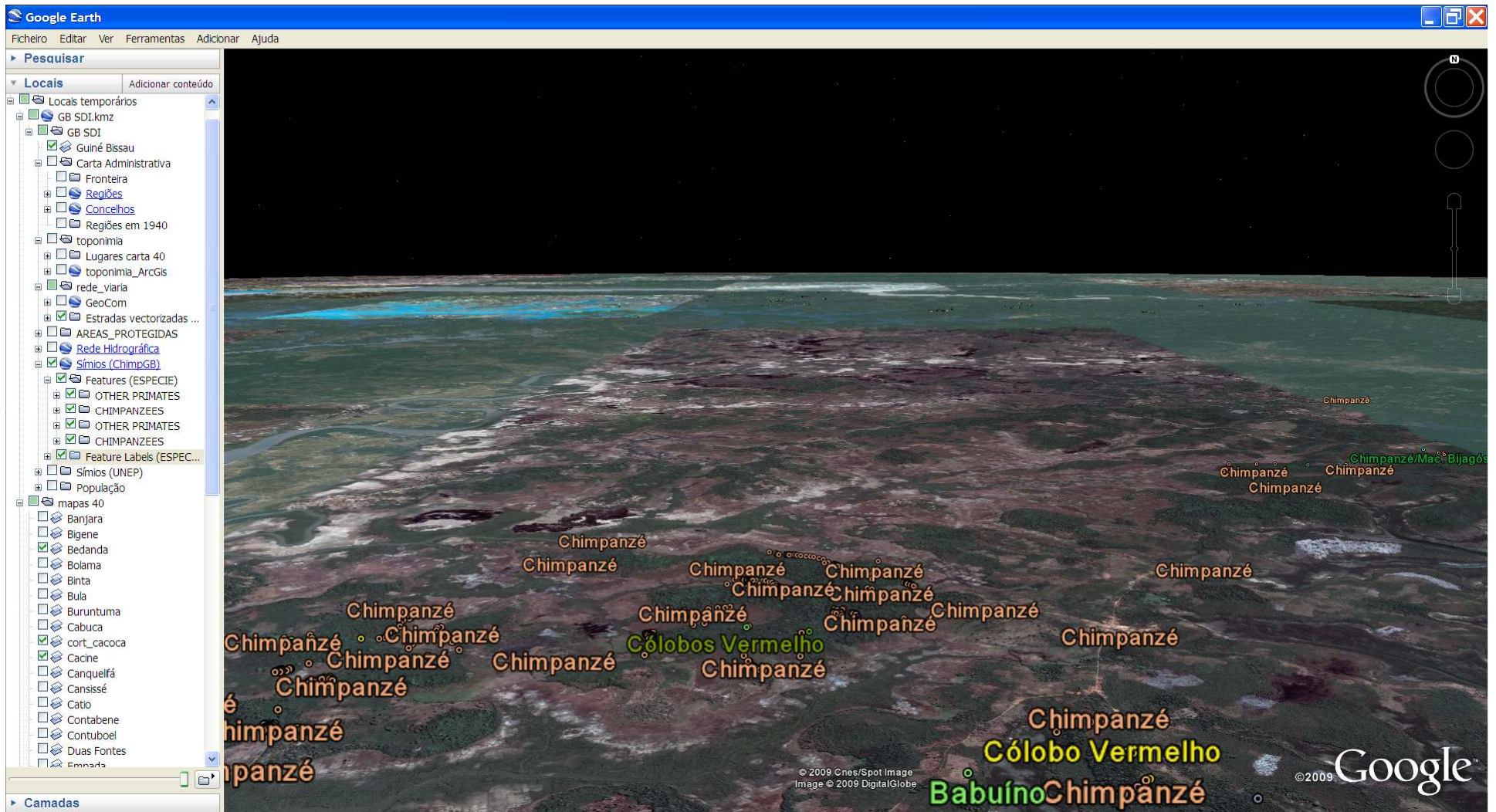
Presença de Símios e cartografia de base do software Google Earth (perspectiva oblíqua e zoom *in*)



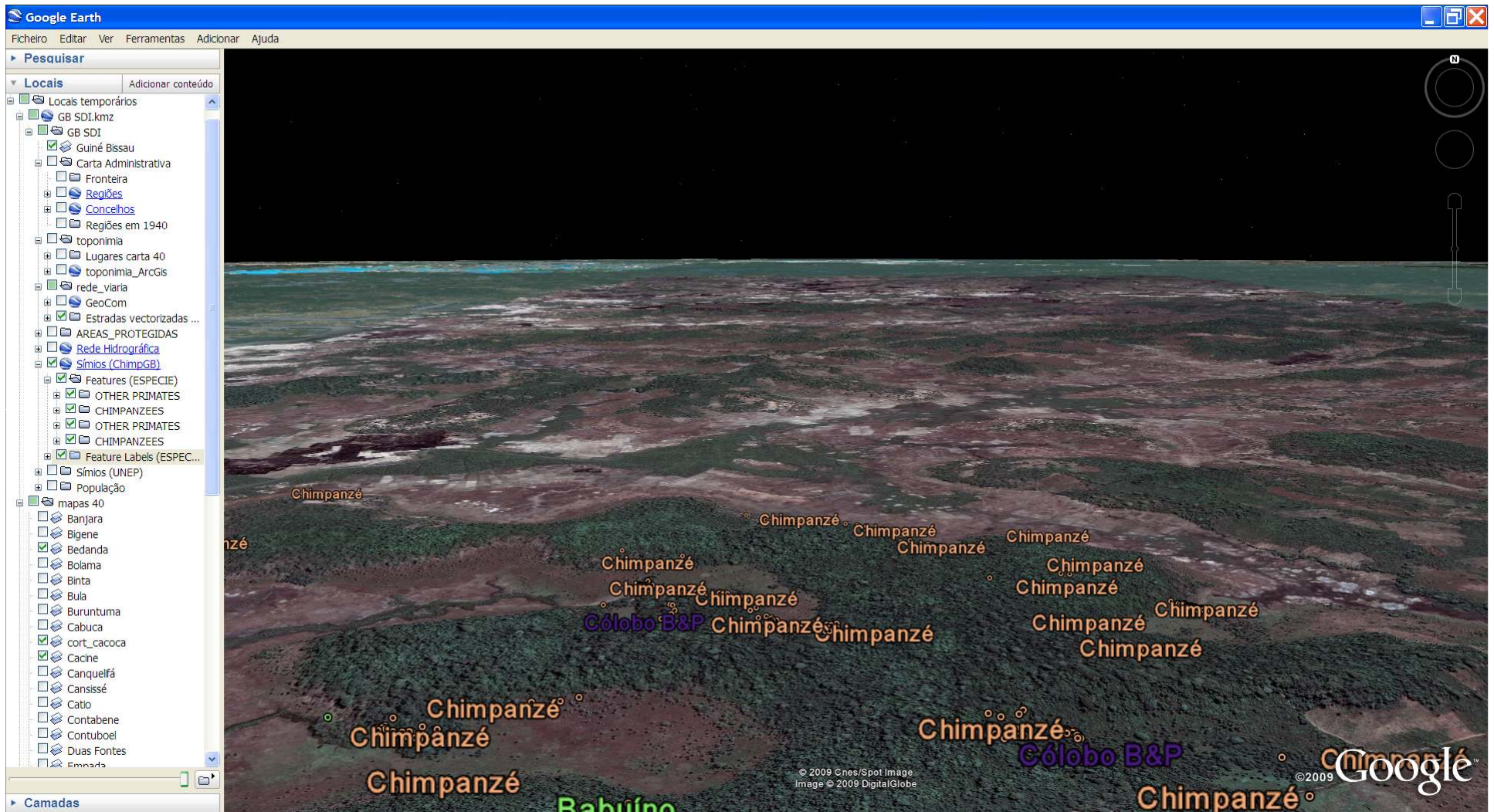
Cartografia de base do software Google Earth e a Presença de Símios (informação alfanumérica)



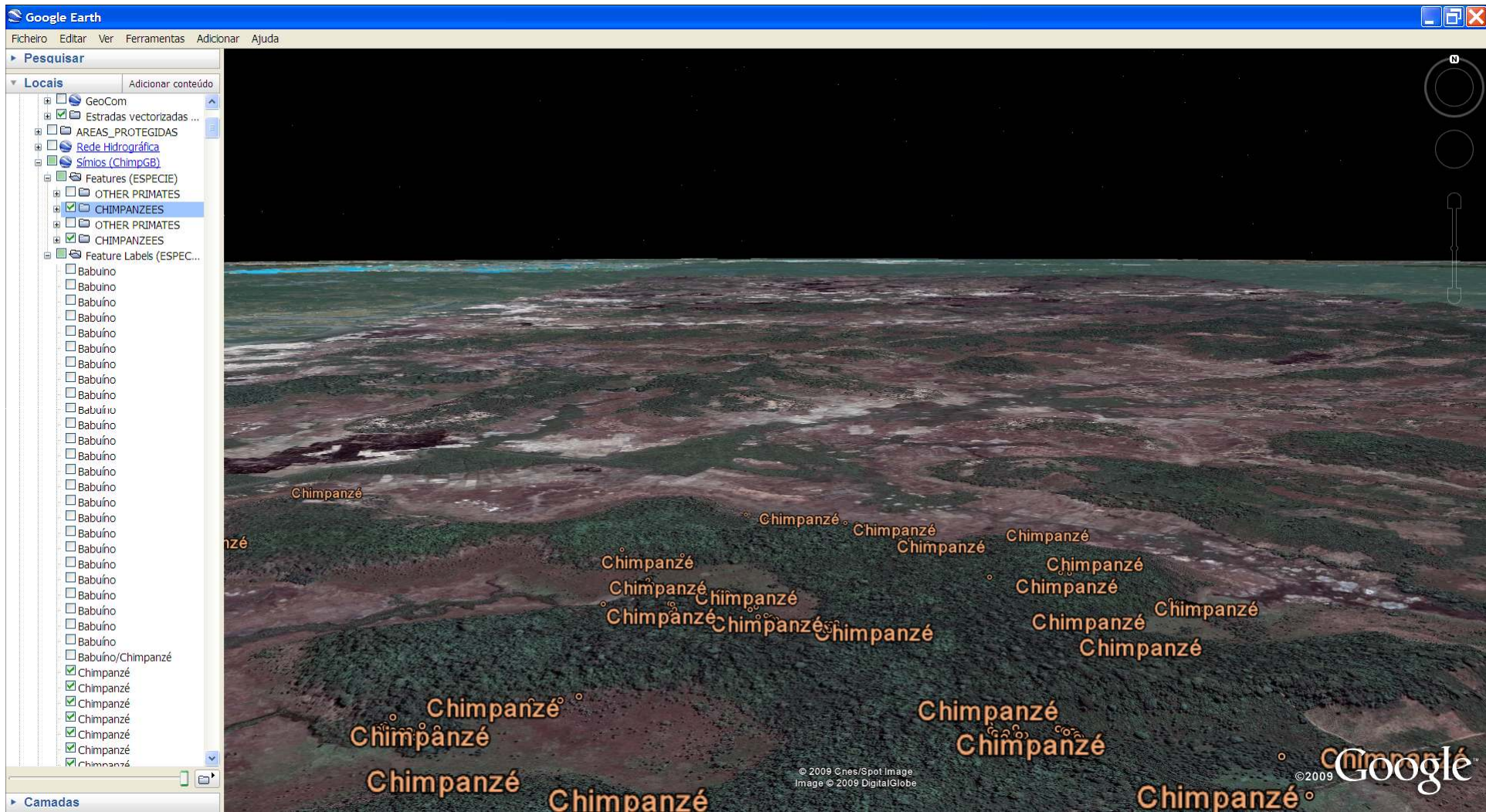
Cartografia de base do software Google Earth e a Presença de Símios (informação alfanumérica)



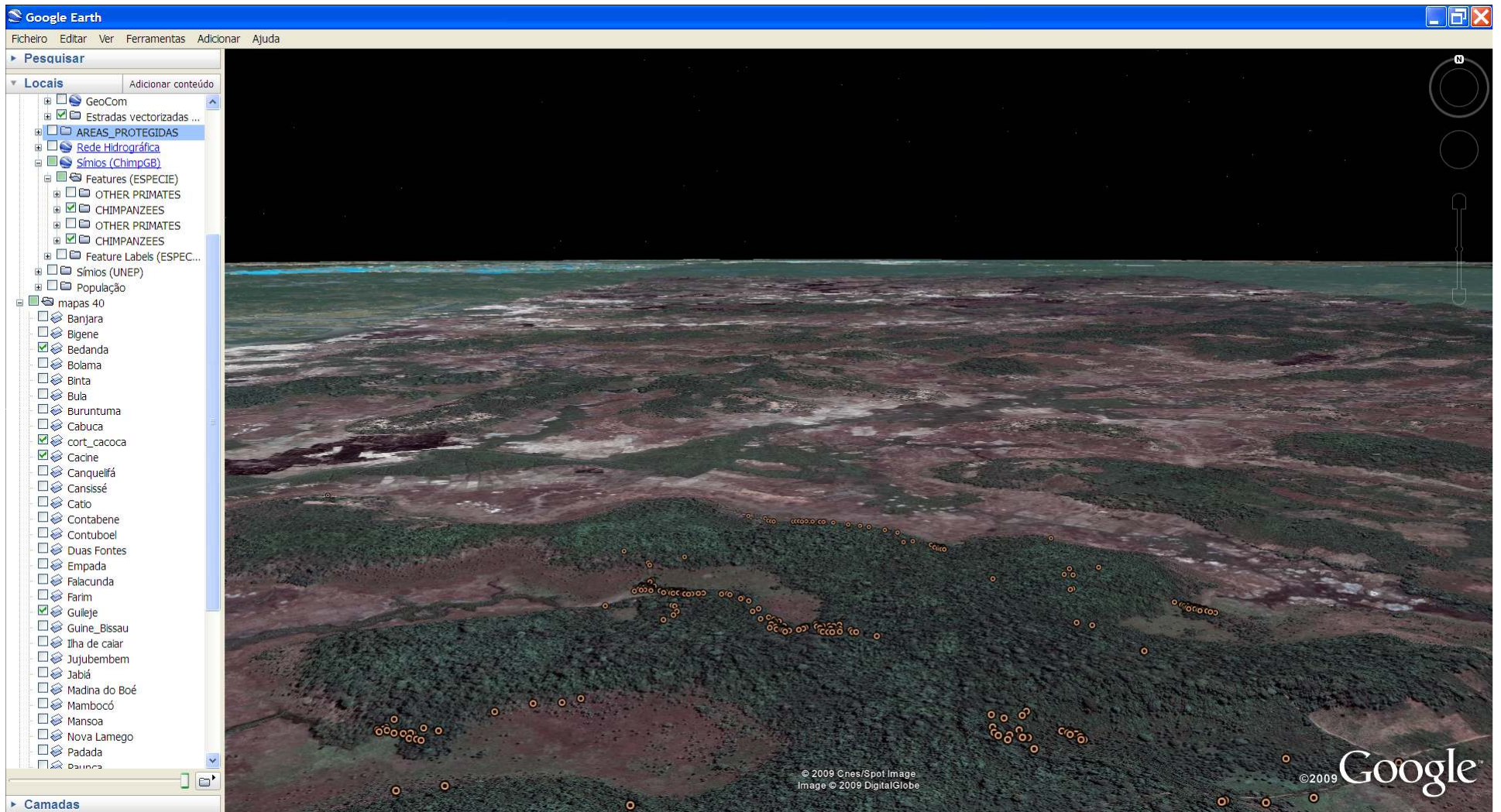
Cartografia de base do software Google Earth e a Presença de Símios (labels)



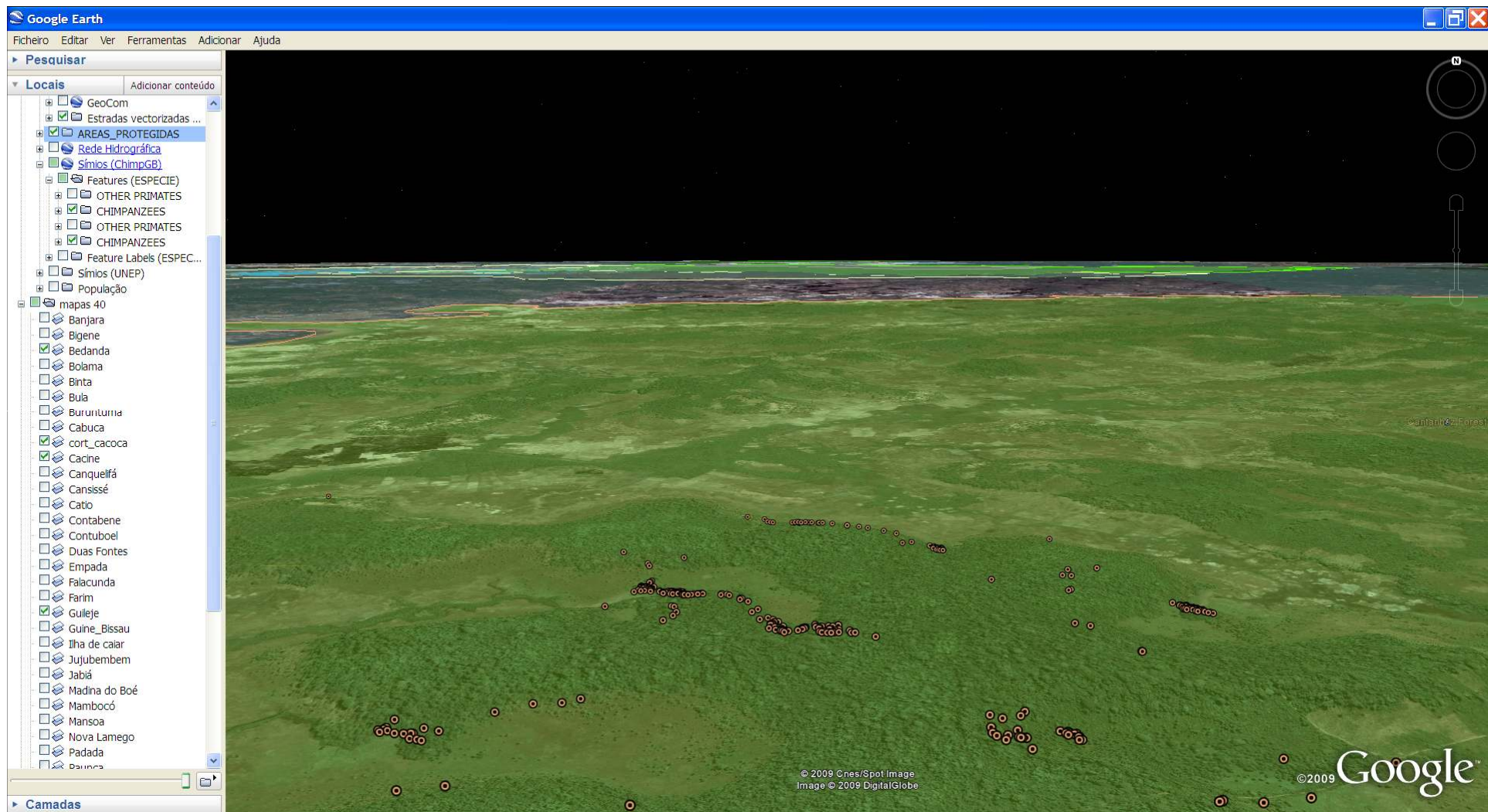
Cartografia de base do software Google Earth e a Presença de Símios (labels). Função pan



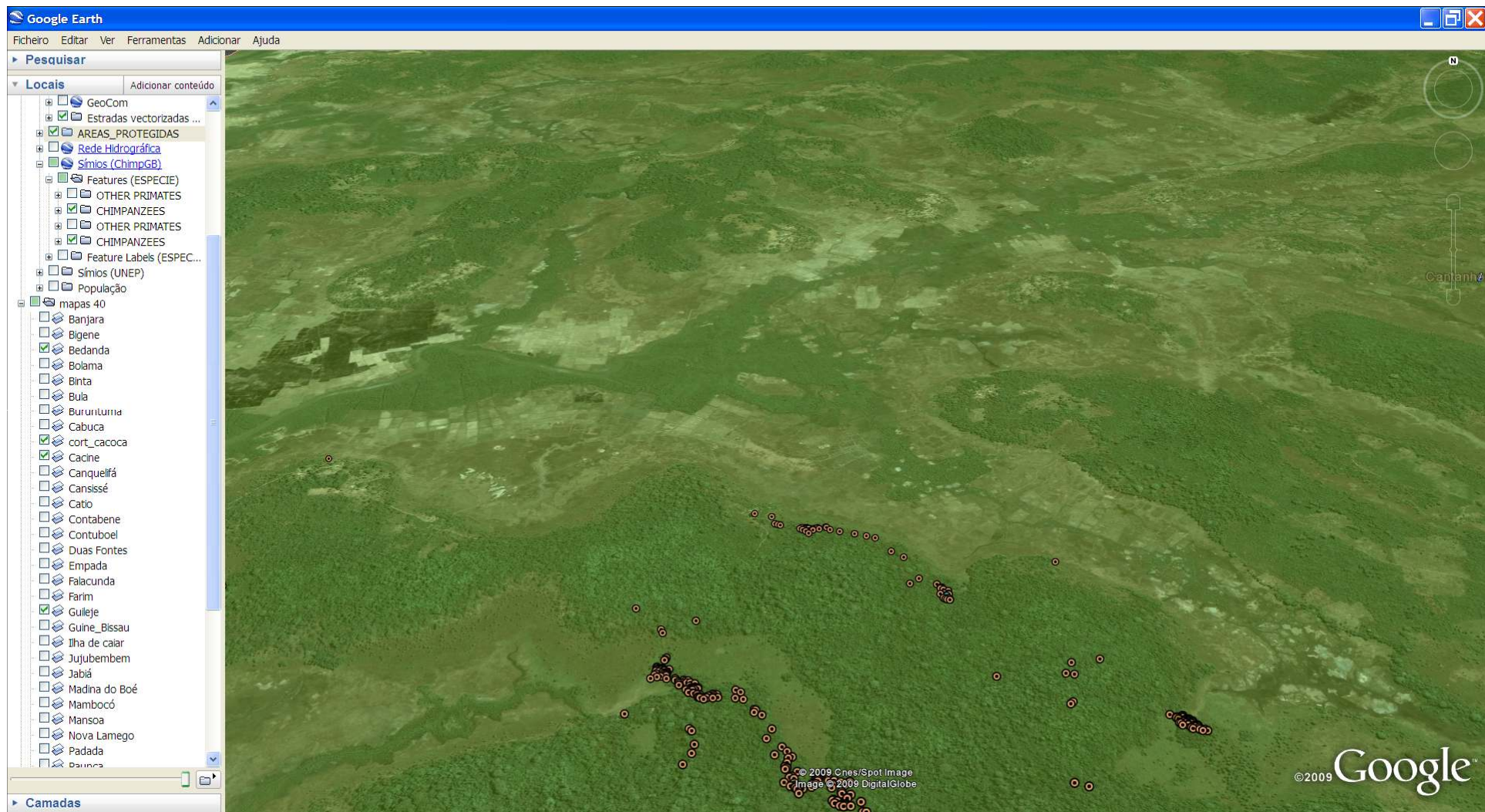
Extracção dos chimpanzés do tema “símios”



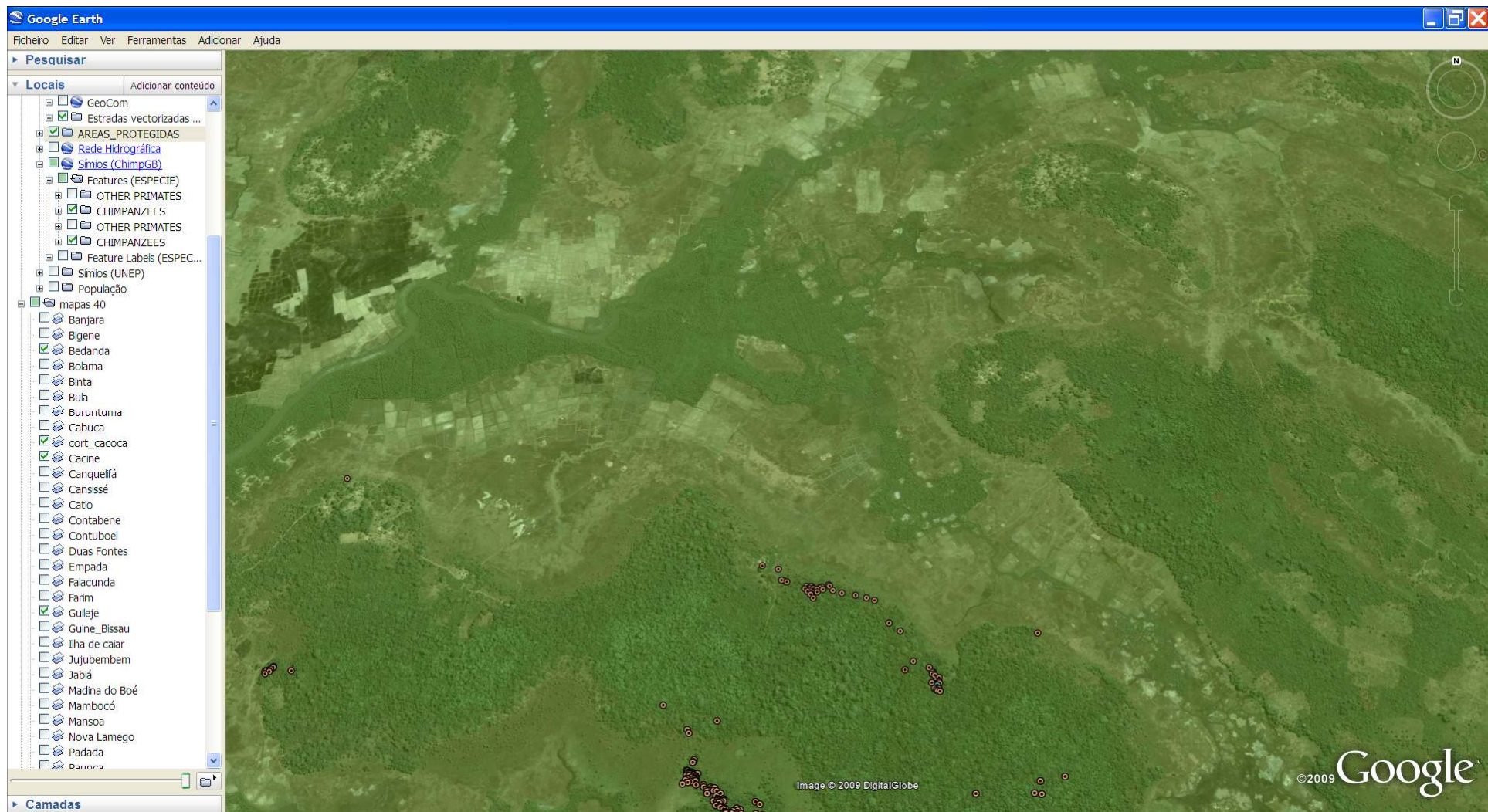
Cartografia de base do software Google Earth e Chimpanzés



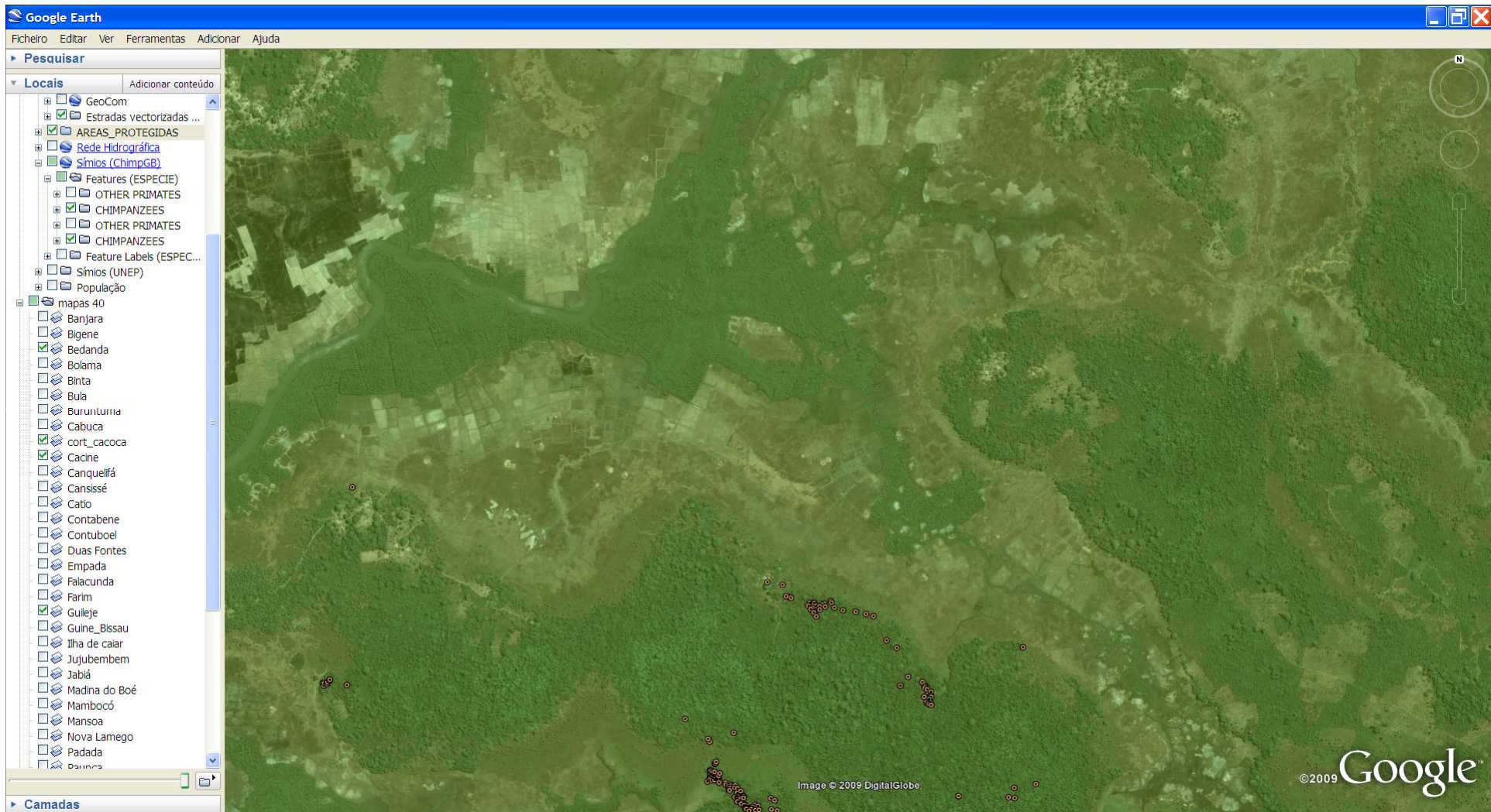
Cartografia de base do software Google Earth, Chimpanzés e áreas protegidas



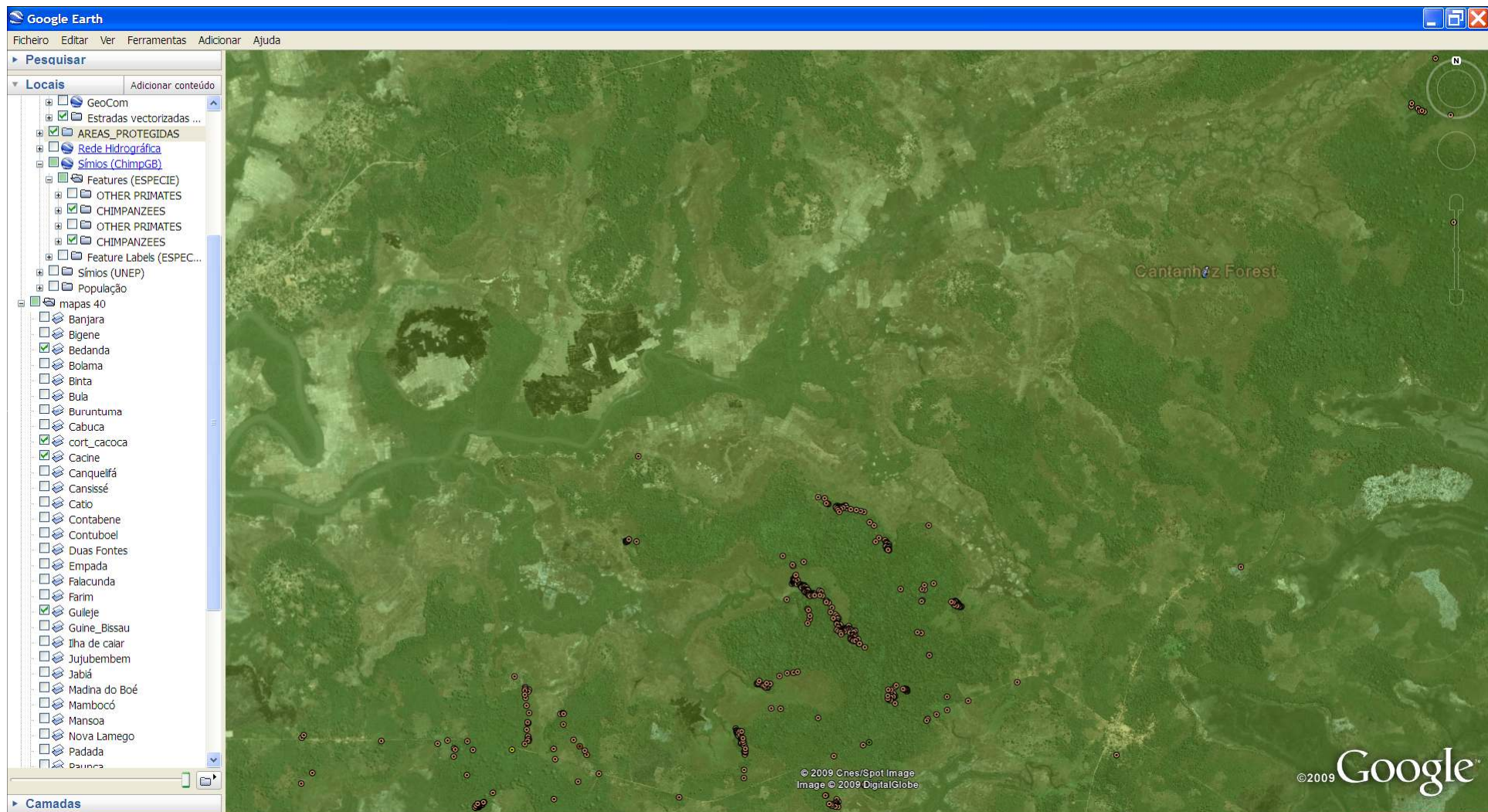
Alteração da visualização (obliqua para vertical)



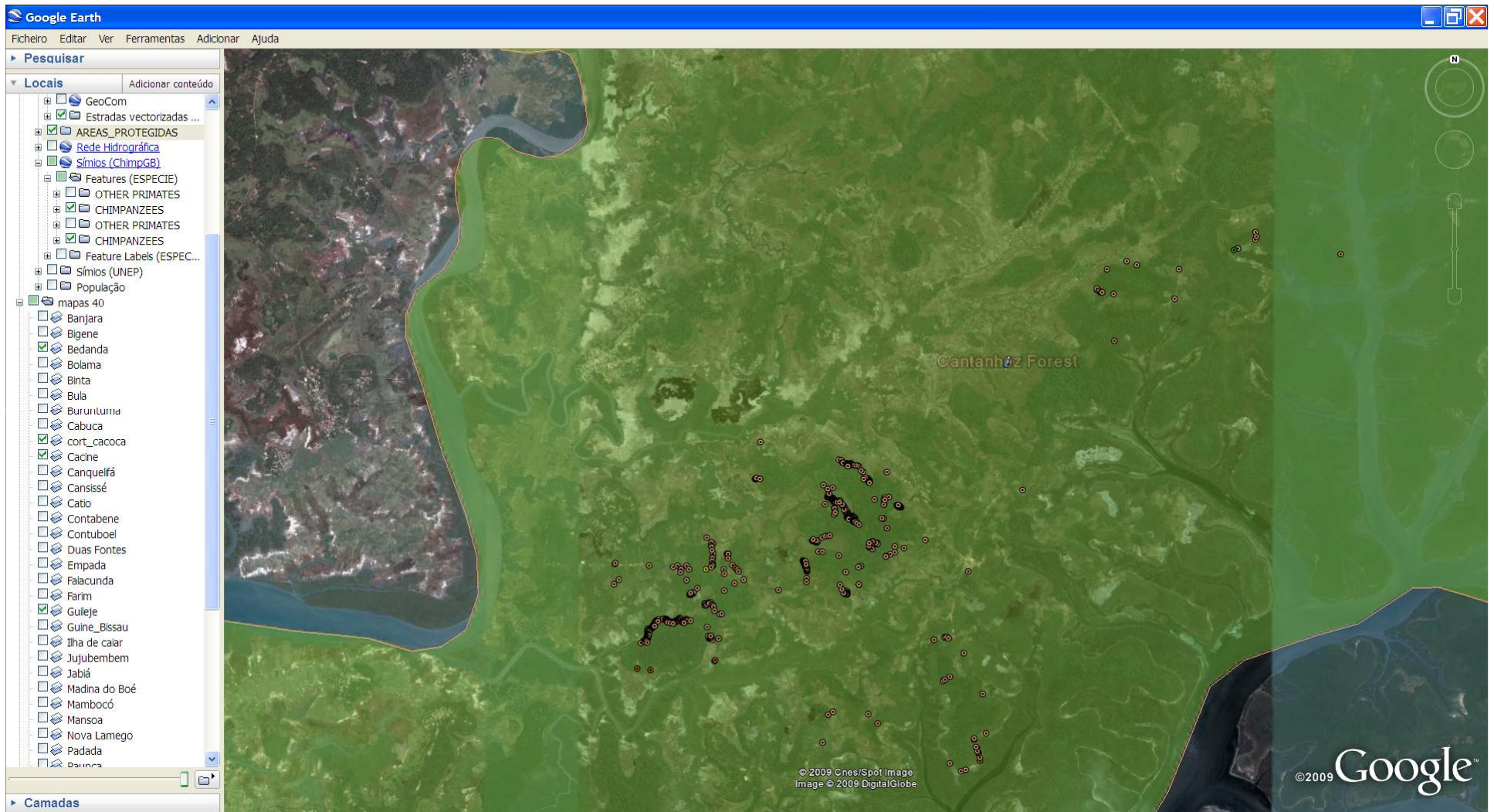
Alteração da visualização (obliqua para vertical)



Alteração da visualização (obliqua para vertical)



Alteração da visualização (obliqua para vertical)



Áreas Protegidas e chimpanzés (com a cartografia de base do software Google Earth)

The image shows a Google Earth interface with a map of a protected area in Guinea-Bissau. The map displays a large green area with a blue river and several small red and black markers. A popup window on the right provides detailed information for a specific site (FID = 4).

Localis

- GeoCom
- Estradas vectorizadas ...
- AREAS_PROTEGIDAS
 - Rede Hidrográfica
 - Símos (ChimpGB)
 - Features (ESPECIE)
 - OTHER PRIMATES
 - CHIMPANZEES
 - OTHER PRIMATES
 - CHIMPANZEES
 - Feature Labels (ESPEC...
 - Símos (UNEP)
 - População
 - mapas 40
 - Banjara
 - Bigene
 - Bedanda
 - Bolama
 - Binta
 - Buía
 - Burunturria
 - Cabuca
 - cort_cacoca
 - Cacine
 - Canquellá
 - Cansissé
 - Catio
 - Contabene
 - Contuboel
 - Duas Fontes
 - Empada
 - Falacunda
 - Farim
 - Gulleje
 - Guine_Bissau
 - Iha de caiar
 - Jujubembem
 - Jabiá
 - Madina do Boé
 - Mambocó
 - Mansoa
 - Nova Lamego
 - Padada
 - Baunca

Popup Window Data:

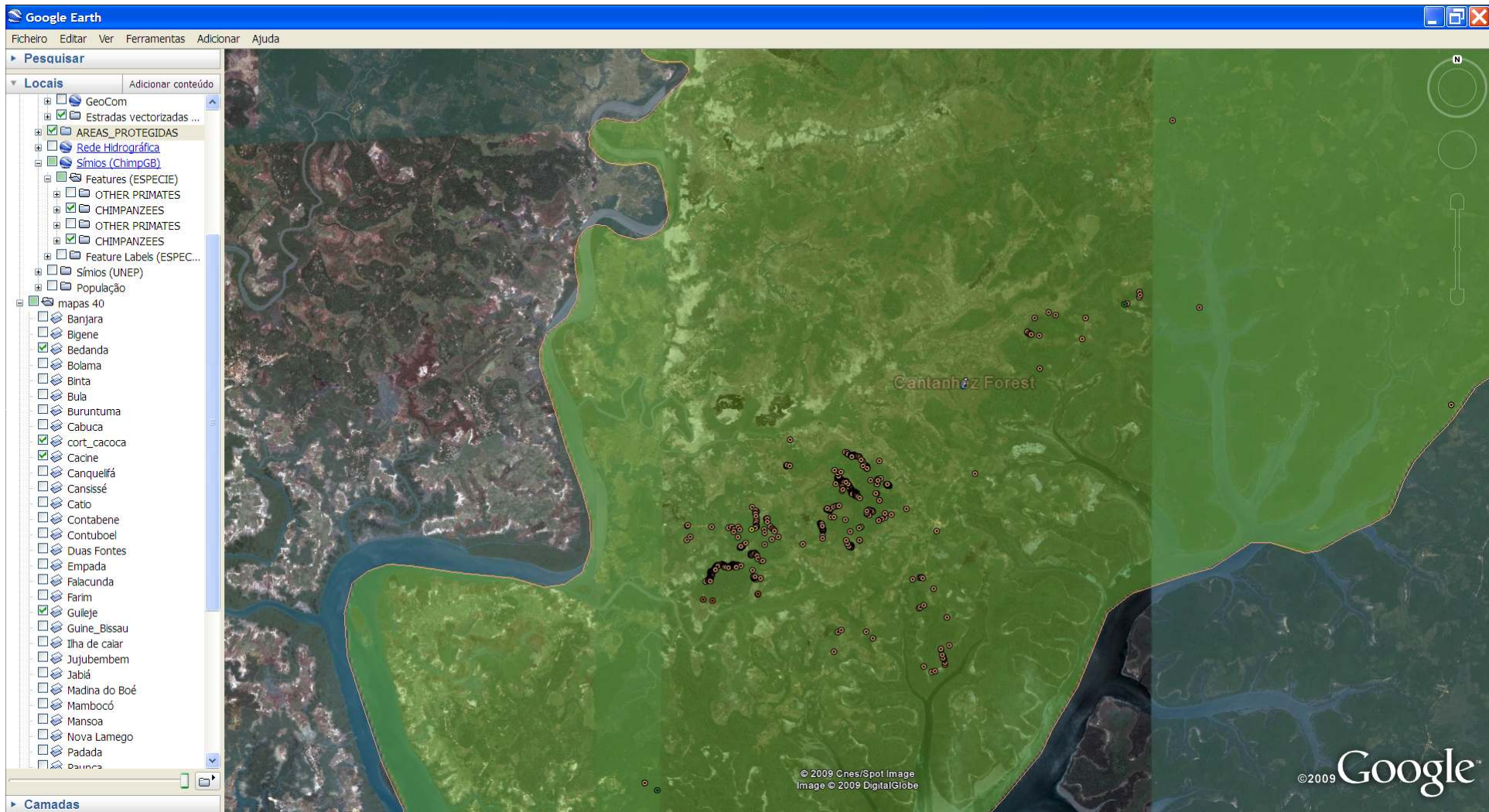
```

FID = 4
SITE_ID = 33049
NAME_ENG = Cantanhez Forest
NAME_LOC = Local name not known
COUNTRY = Guinea-Bissau
SUB_NAT =
LON_DD = -15.04235832
LAT_DD = 11.24528901
DESIG_ENG = Hunting Reserve
DESIG_LOC = Local designation not known
INT_CONV = Not Applicable
INT_CRIT =
STATUS = Designated
STATUS_D = 0
STATUS_M = 0
STATUS_YR = 1980
EVENT = Not Known
EVENT_D = 0
EVENT_M = 0
EVENT_YR = 0
IUCN_CAT = Not Known
DOC_AREA_H = 68000
GIS_AREA_H = 121740.09898361
DOC_M_AREA = 0
GIS_M_AREA = 0
NO_I_AKLE = Not Known
NO_TK_AREA = 0
GIS_NO_TK = 0
GOV_N_TYPE = Current governance of site is not known
GOV_N_SUB = Not Known
MANG_AUTH =
OWN_N_TYPE = Not Known
OWN_N_SUB = Not Known
OWNER_AUTH =
MARINE_C = No
SUBTIDAL = No
INTERTIDAL = No
SITETYPE = National
NOTES = Size taken from 1991 source. Site proposed to
change designation to National Park (see IUCN 2001 source).
(Area from GIS calculation of polygon is 120987 ha.)
SOURCE = Previous Source: Elephant Conservation Plan,
1991. Latest Info/GIS: Information Update and GIS data from
IUCN Report (2001) "Les Aires Protégées de Guinée-Bissau,
Propositions pour une Stratégie Nationale 2001-2005".
ISO3 = GNB
METADATAID = 682
  
```

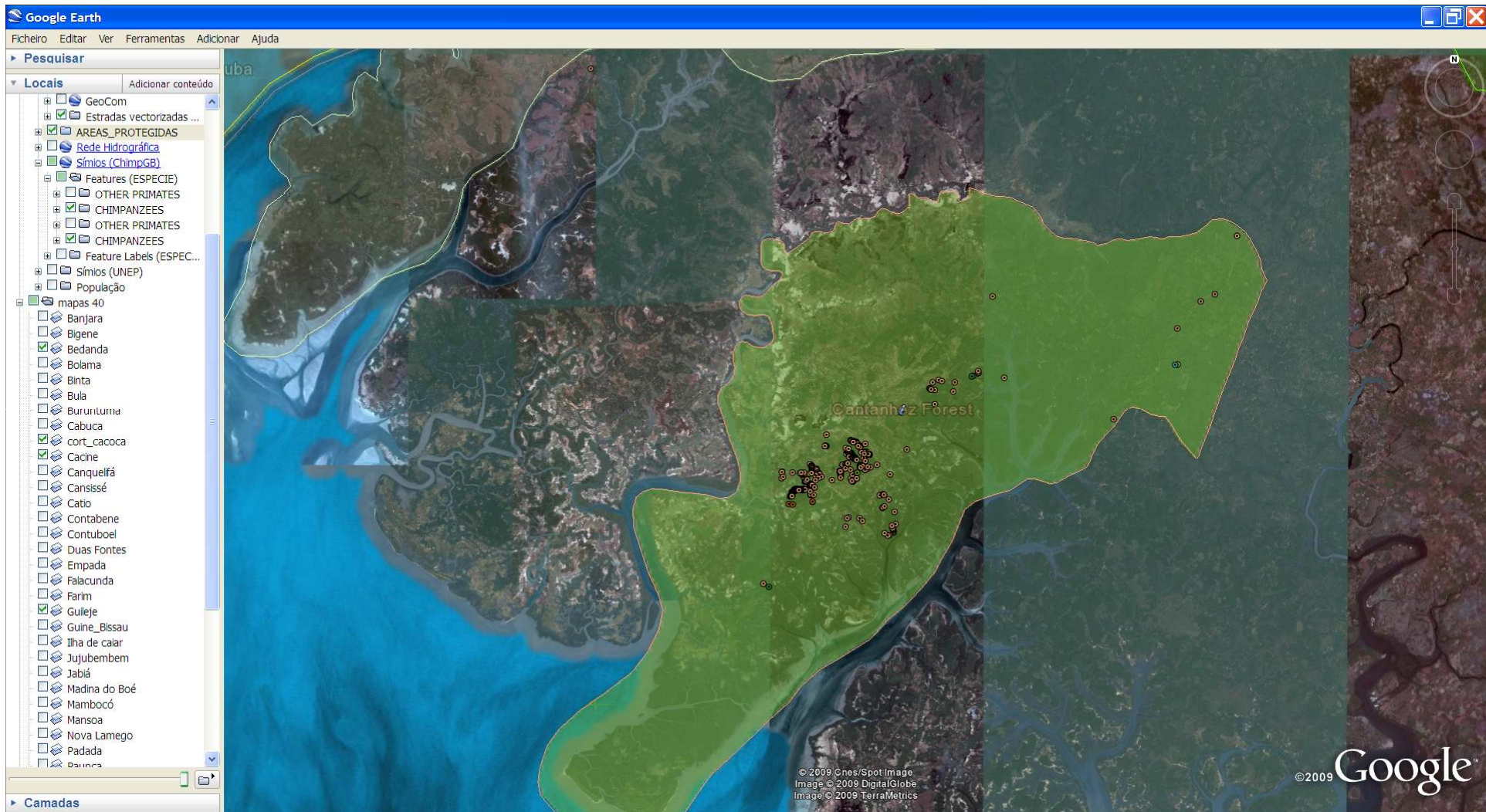
© 2009 Cnes/Spot Image
Image © 2009 DigitalGlobe

© 2009 Google

Áreas Protegidas (visualização da informação alfanumérica associada)



Áreas Protegidas e chimpanzés (zoom out)



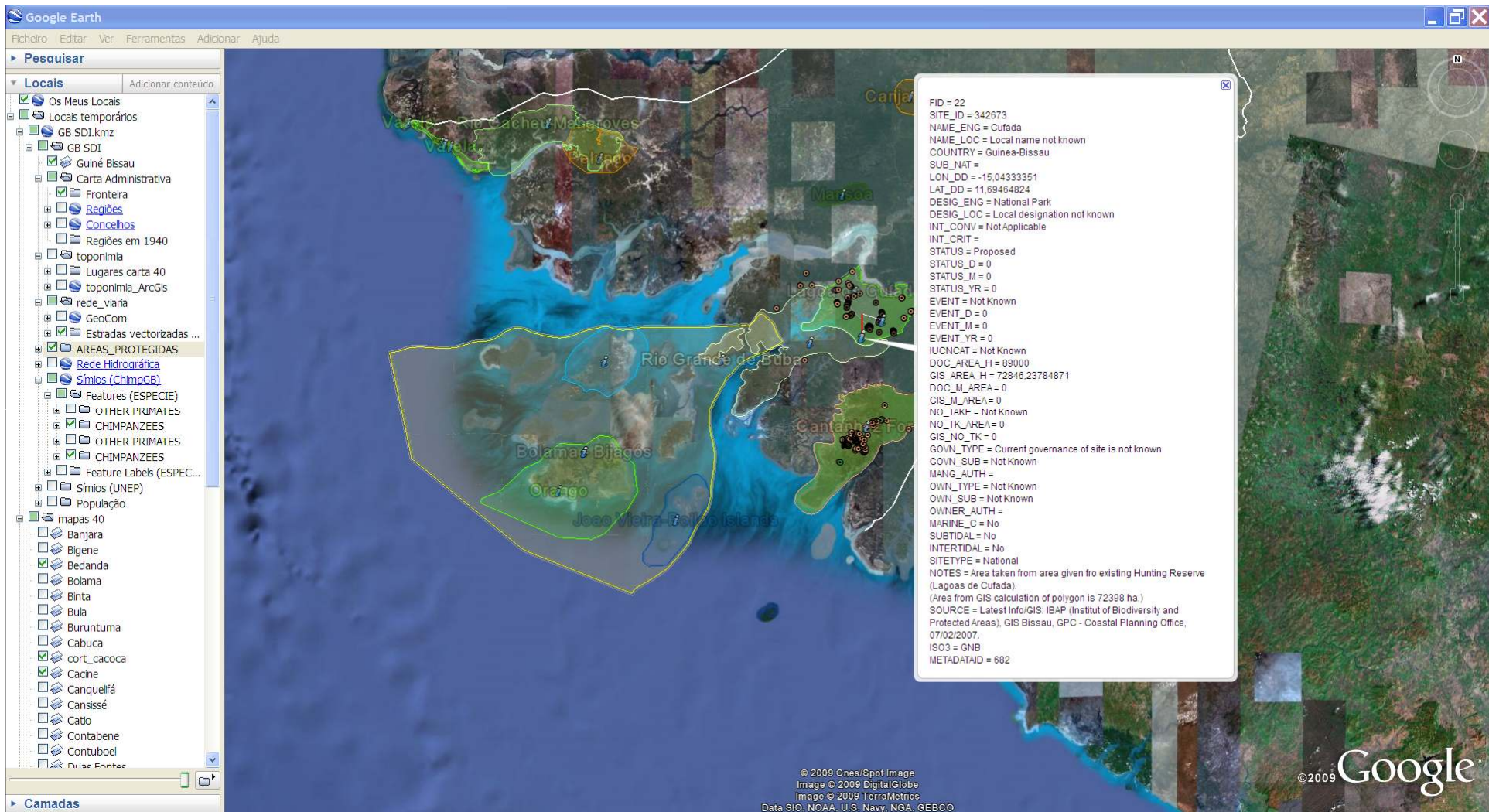
Áreas Protegidas e chimpanzés (zoom out)



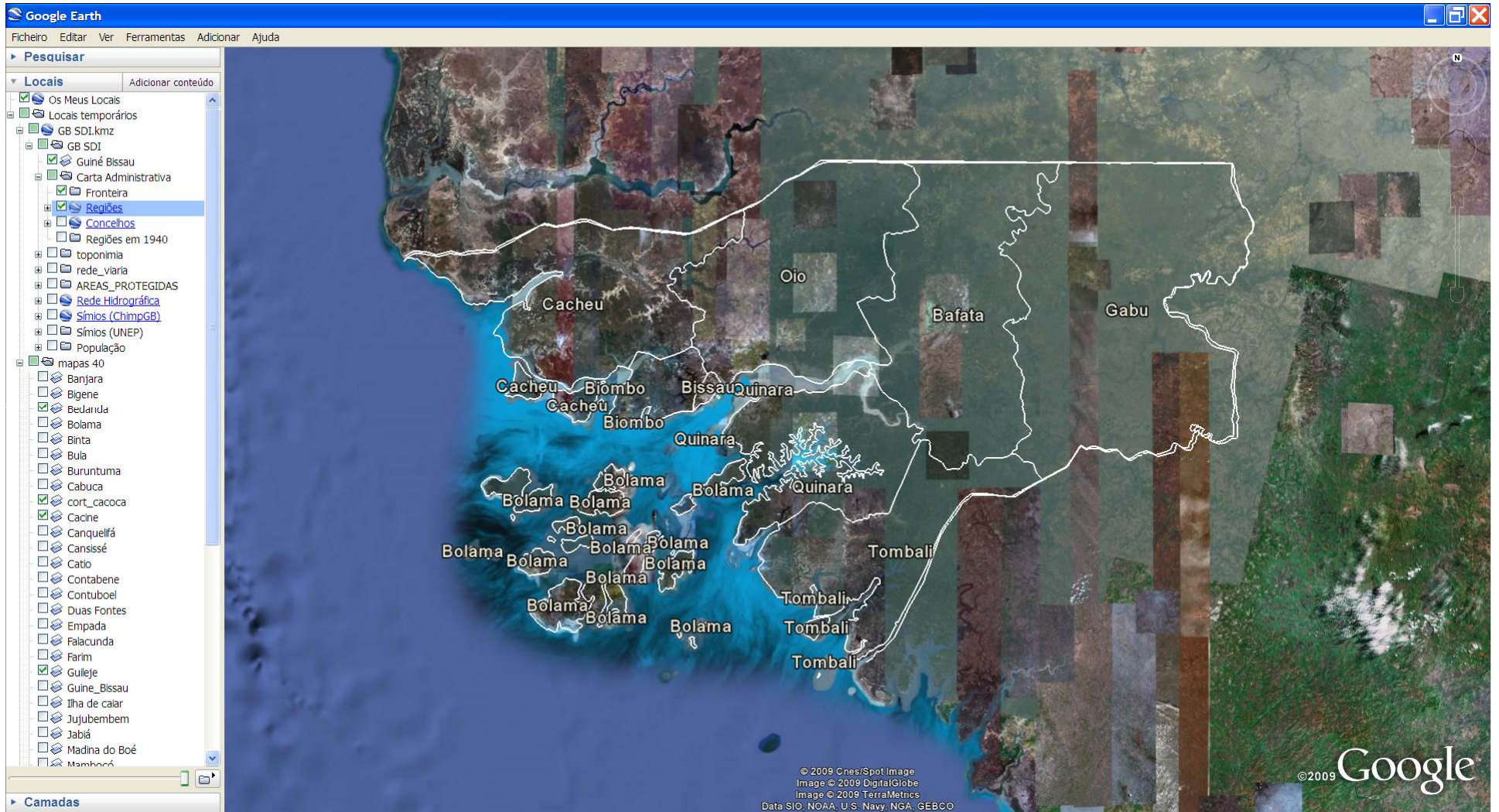
Áreas Protegidas e chimpanzés (zoom out)



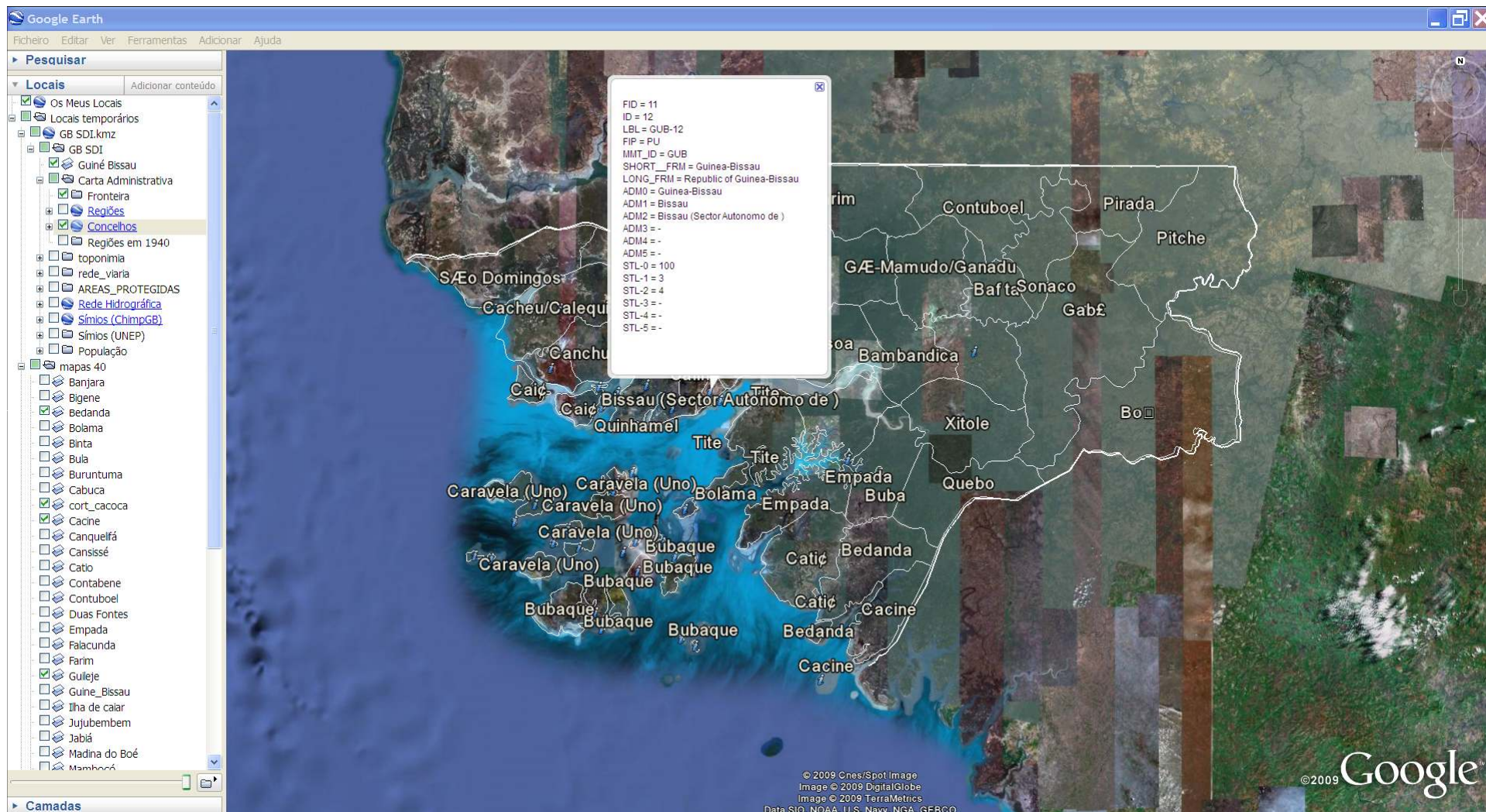
Áreas Protegidas e chimpanzés (zoom out)



Áreas Protegidas (visualização da informação alfanumérica associada)



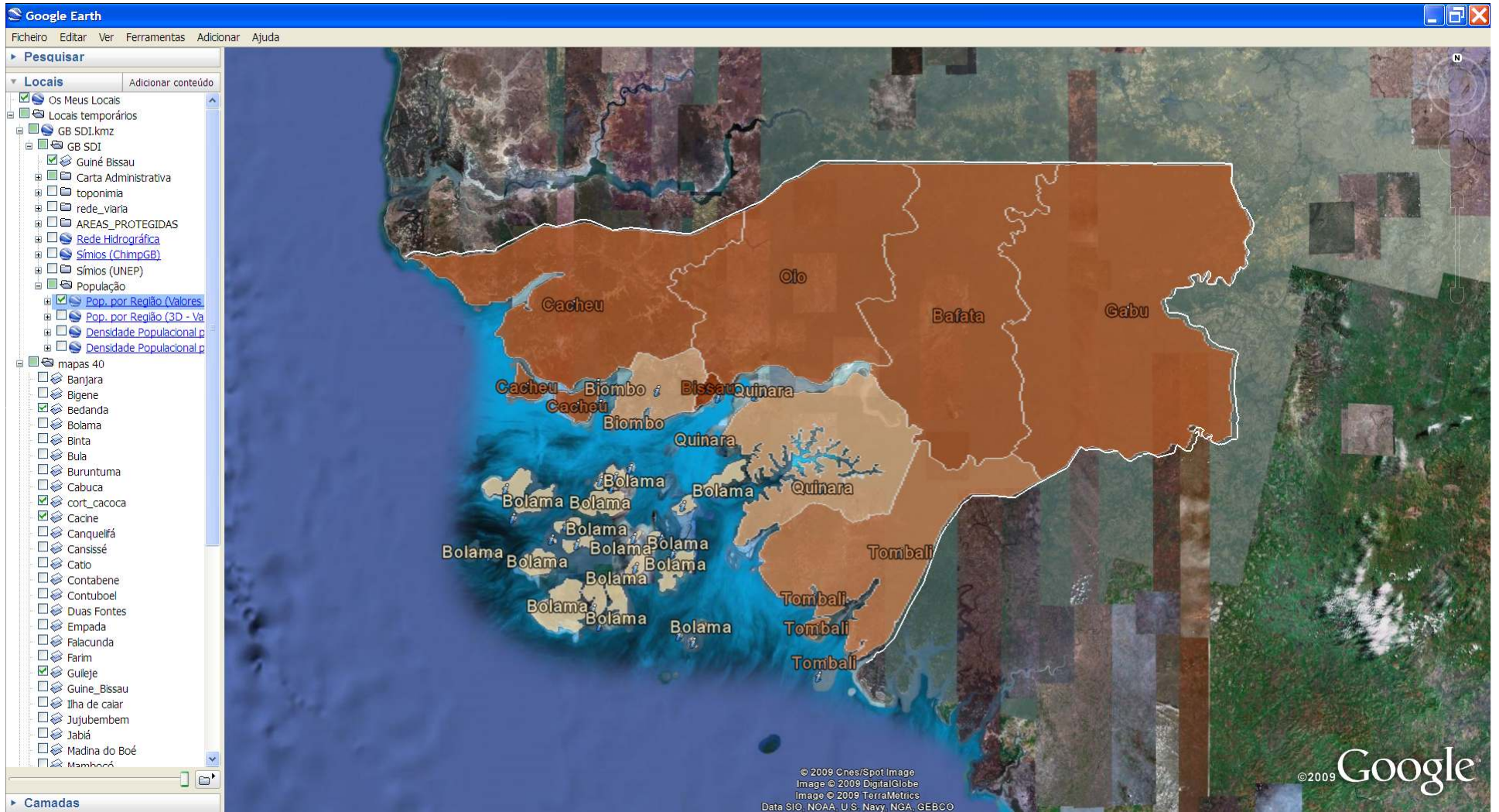
Regiões da Guiné-Bissau



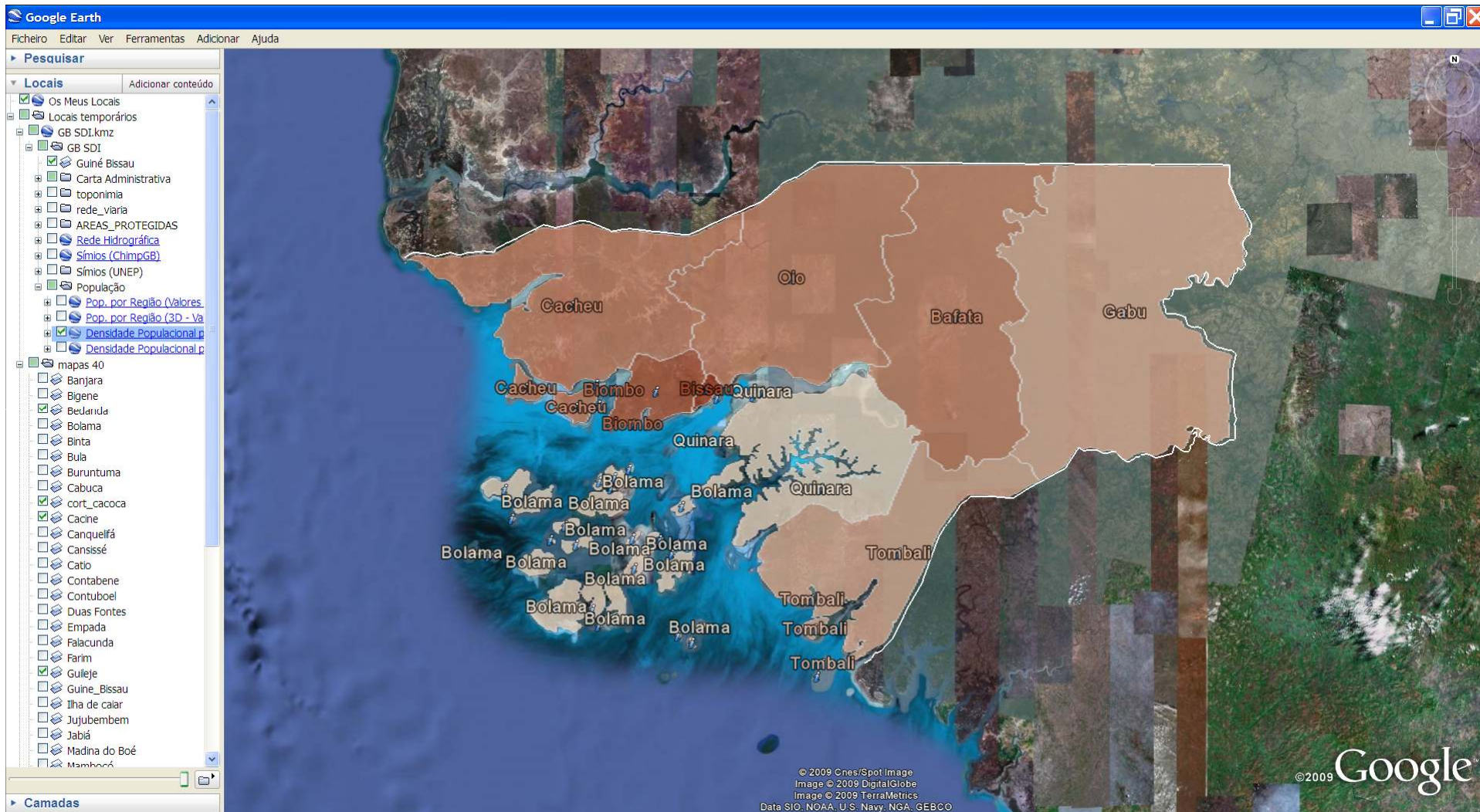
Sectores da Guiné-Bissau (informação alfanumérica associada)



Rede hidrográfica da Guiné-Bissau



População por região (Guiné-Bissau, 2007)



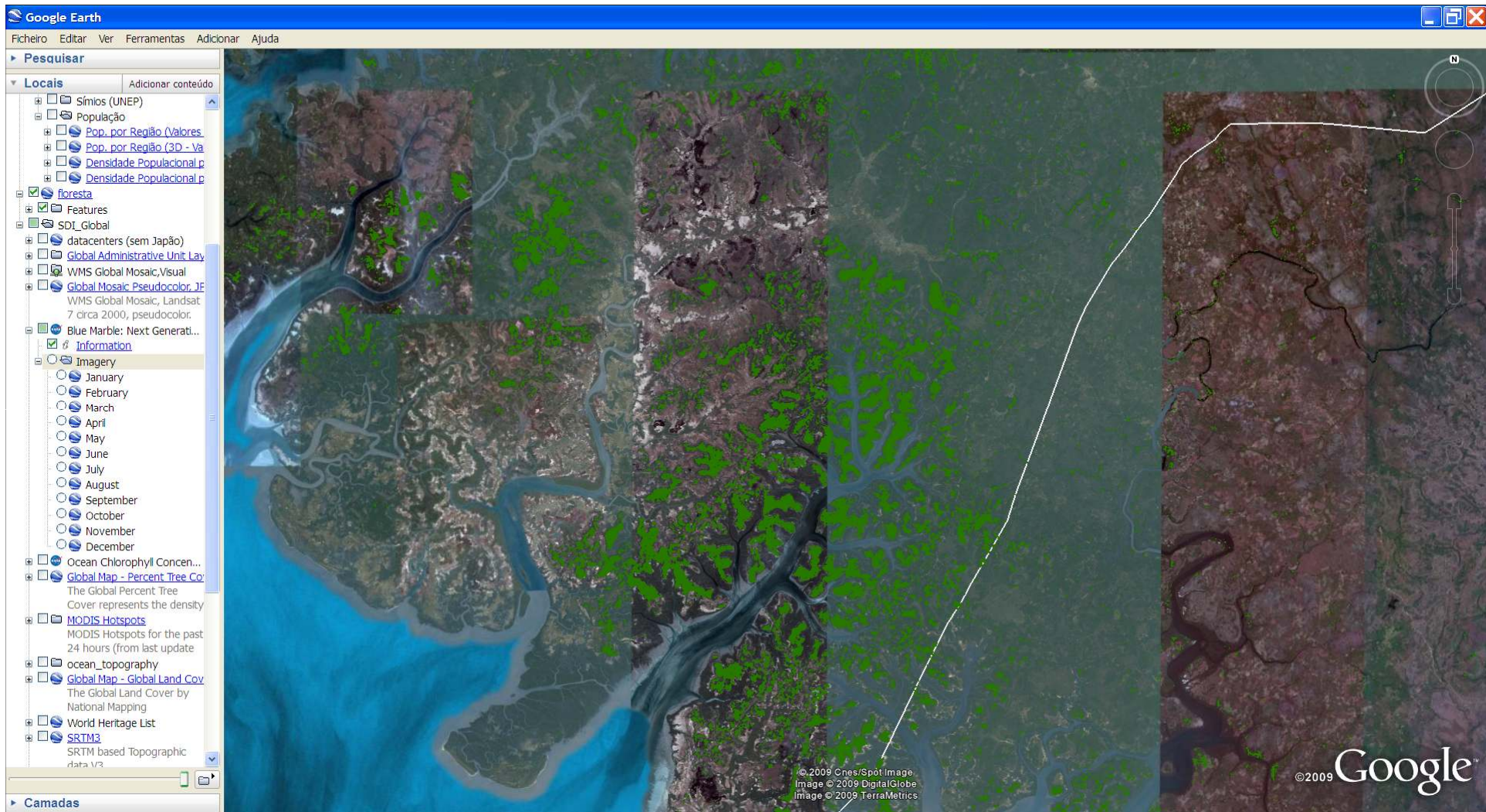
Densidade populacional por região (Guiné-Bissau, 2007)



Áreas Florestais Densas (extração da carta de ocupação do solo, com base em imagens de sat. Landsat, 2007)



Áreas Florestais Densas (zoom in)



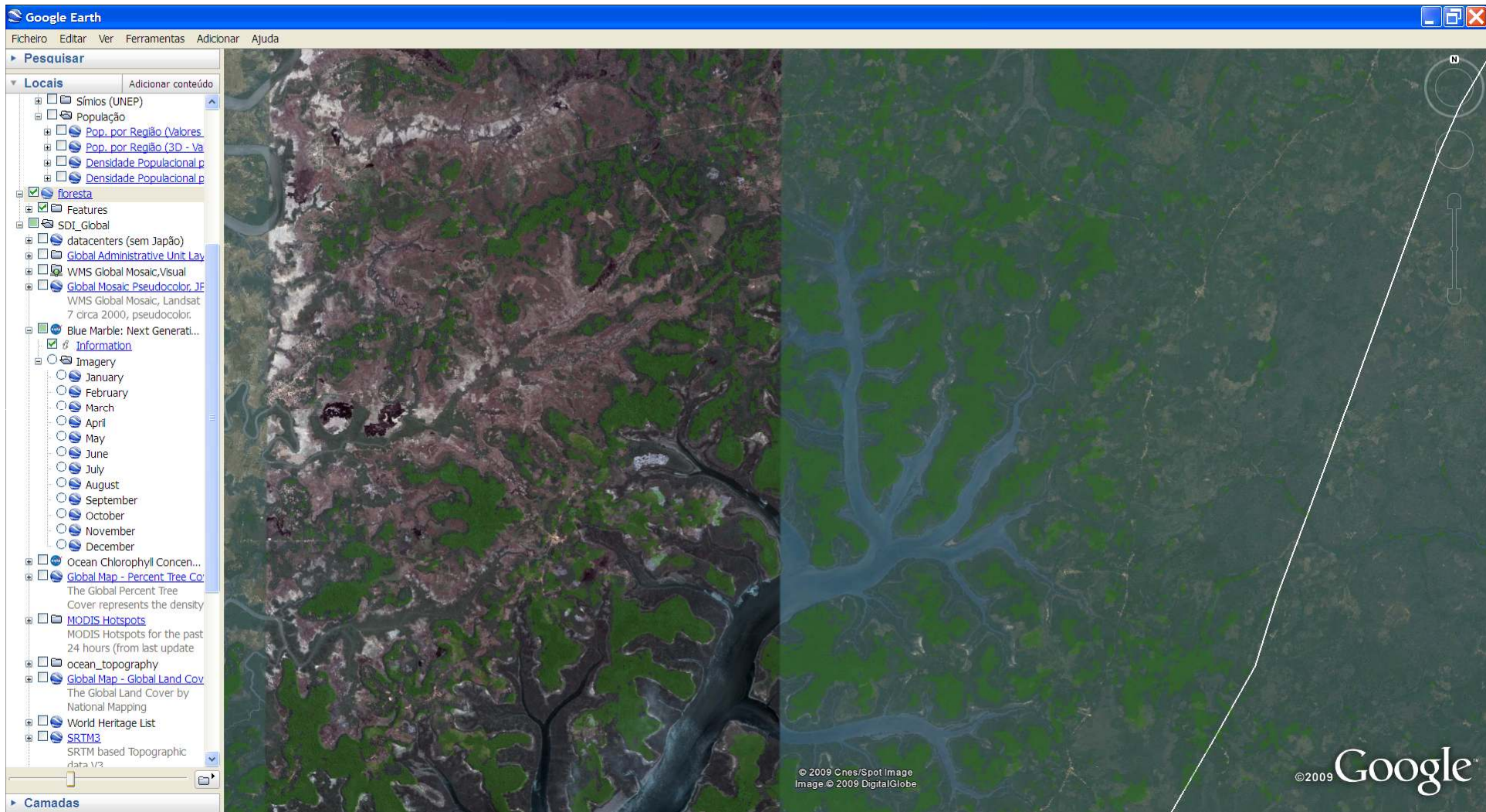
Áreas Florestais Densas (zoom in)



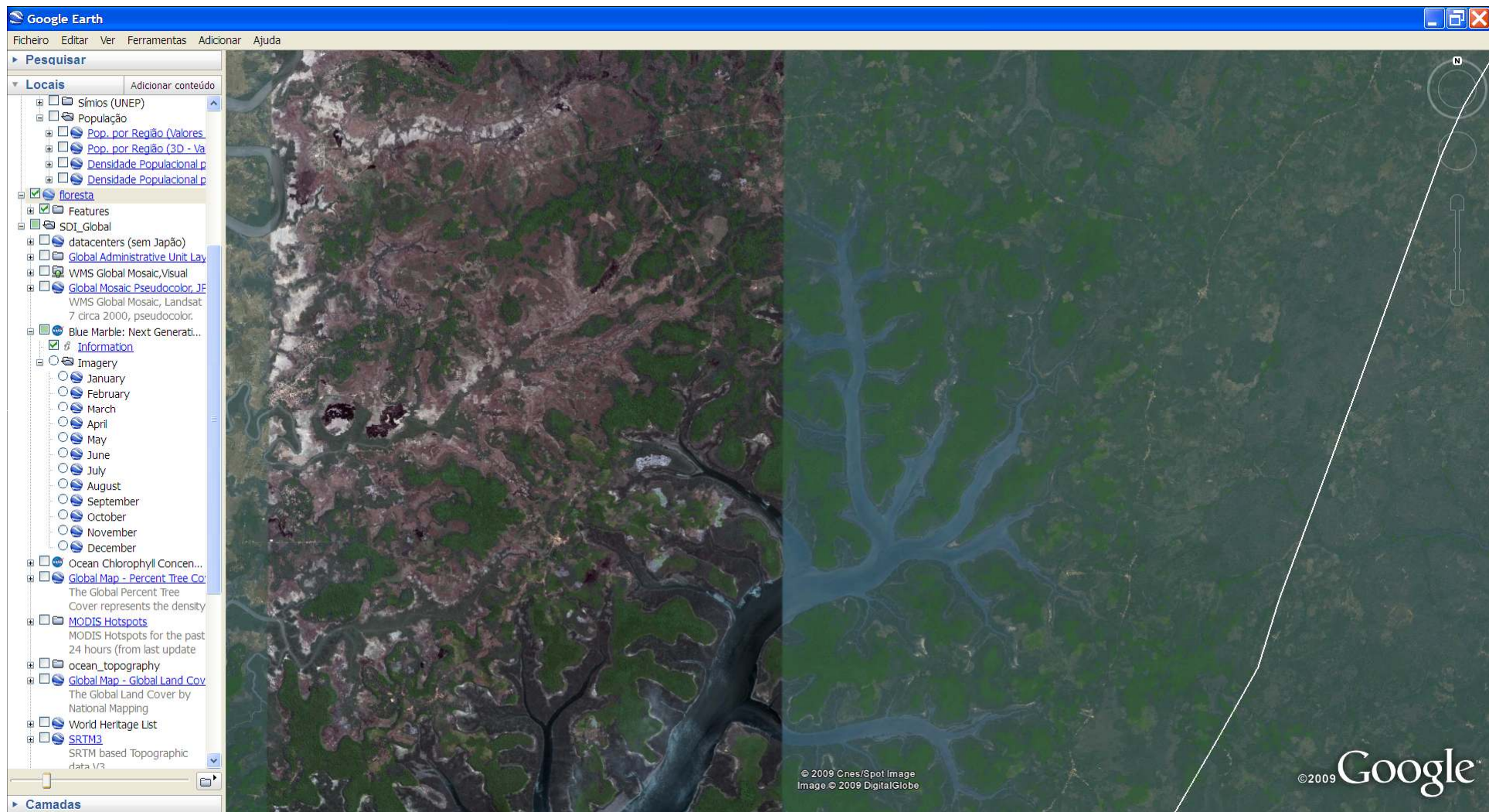
Áreas Florestais Densas (zoom in)



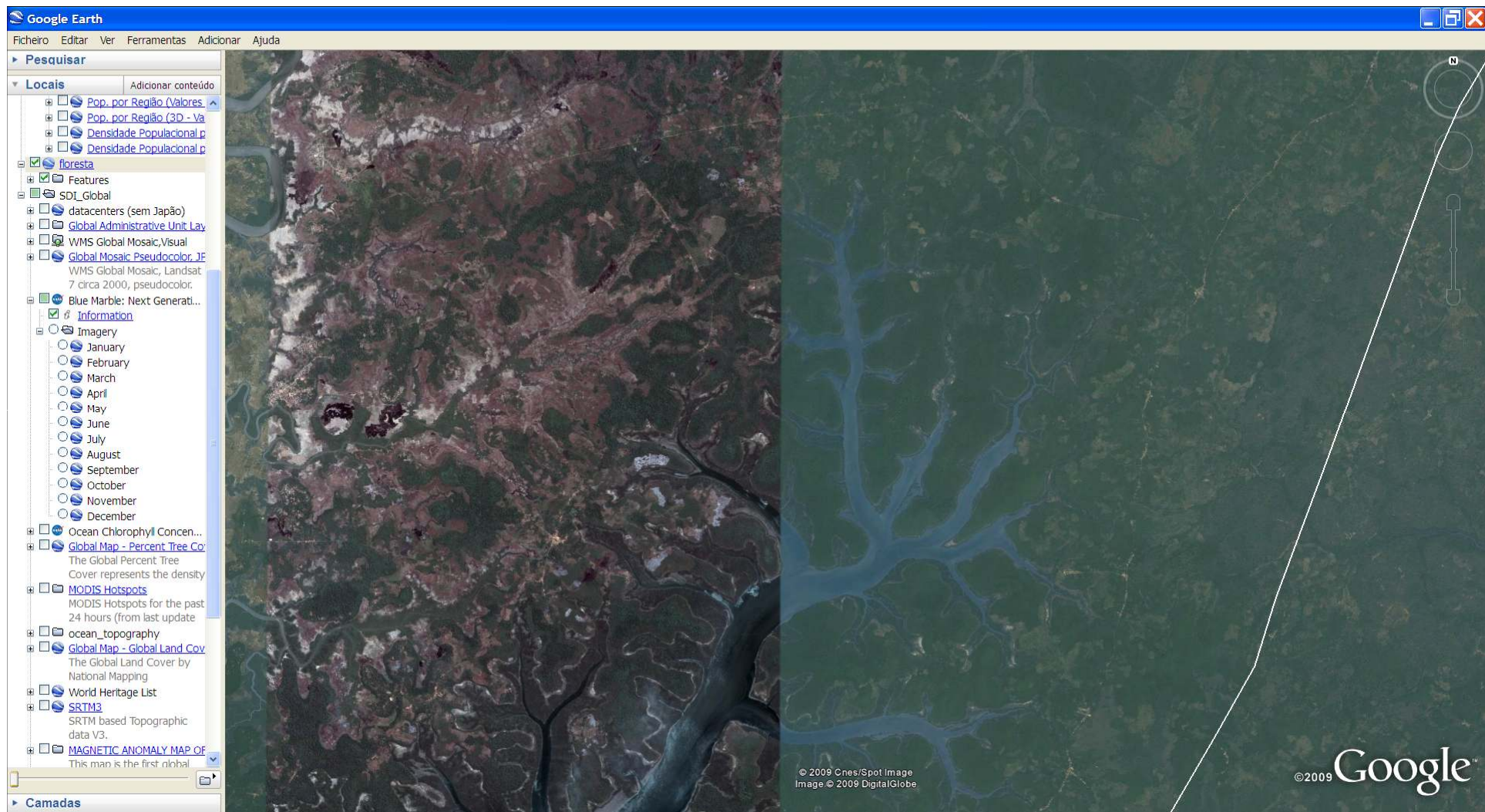
Áreas Florestais Densas (utilização de semi-transparências)



Áreas Florestais Densas (utilização de semi-transparências)



Áreas Florestais Densas (utilização de semi-transparências)



Cartografia de base do software Google Earth

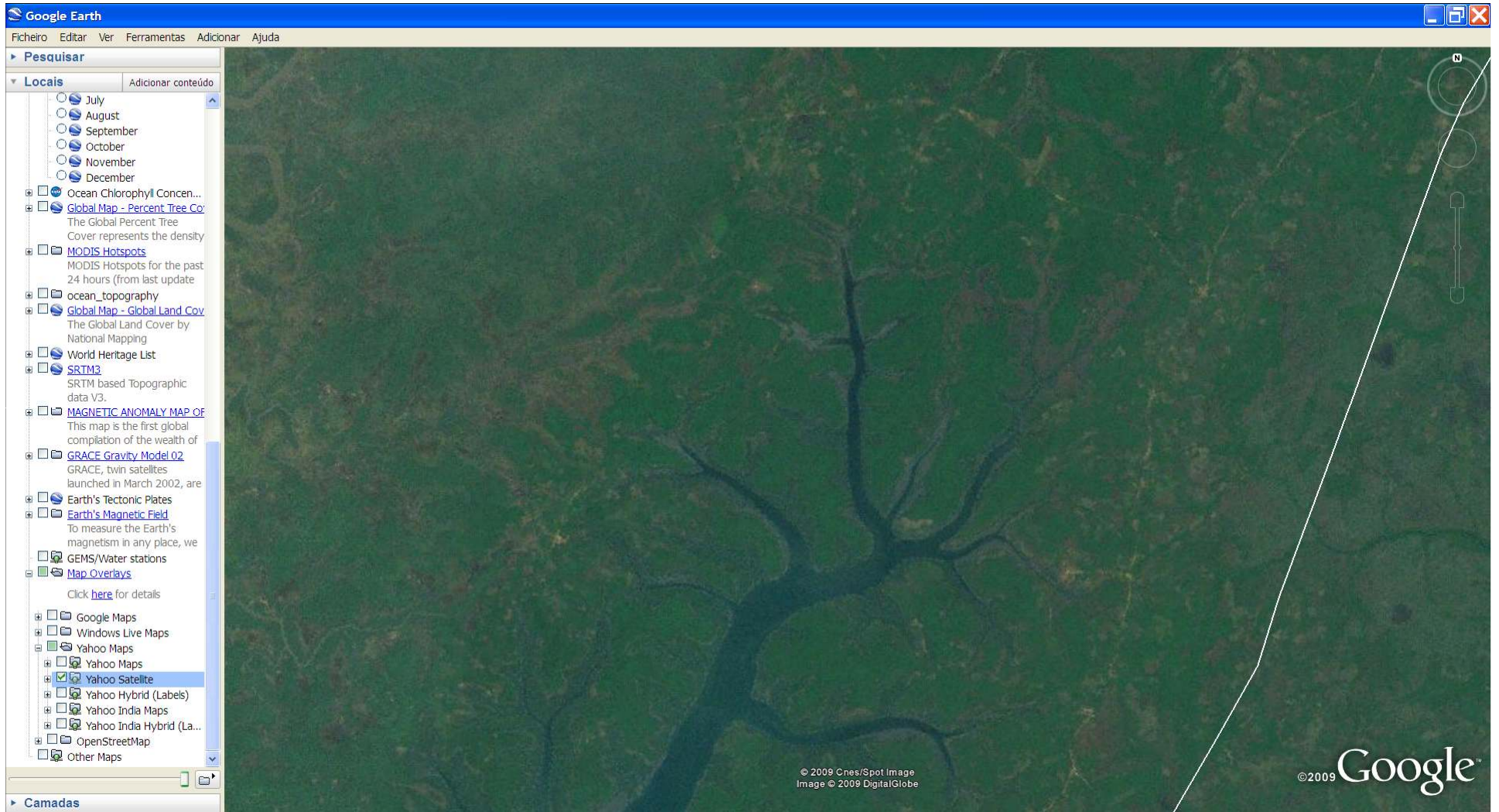


Imagem de Satélite (Geo-browser Yahoo)

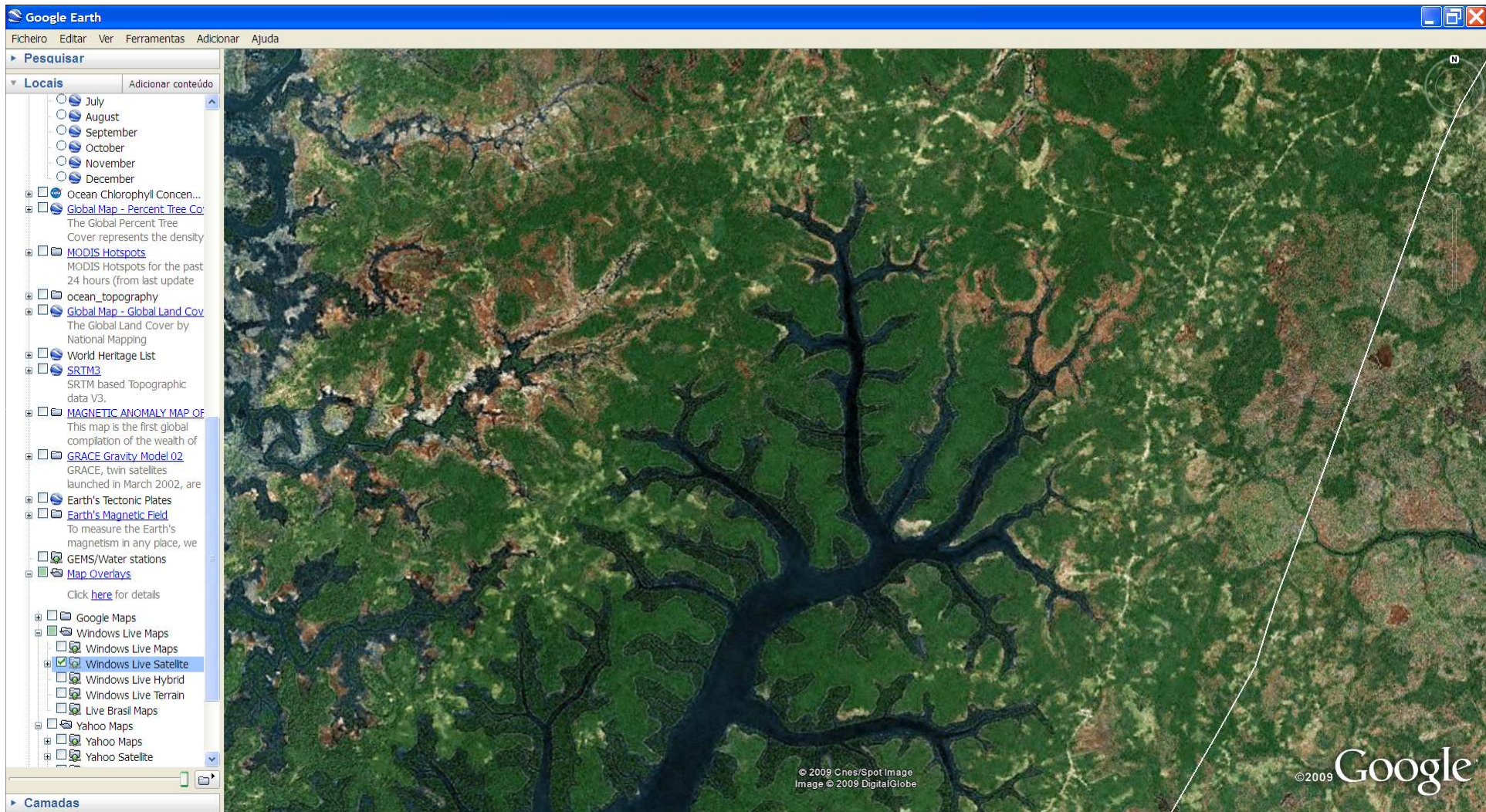
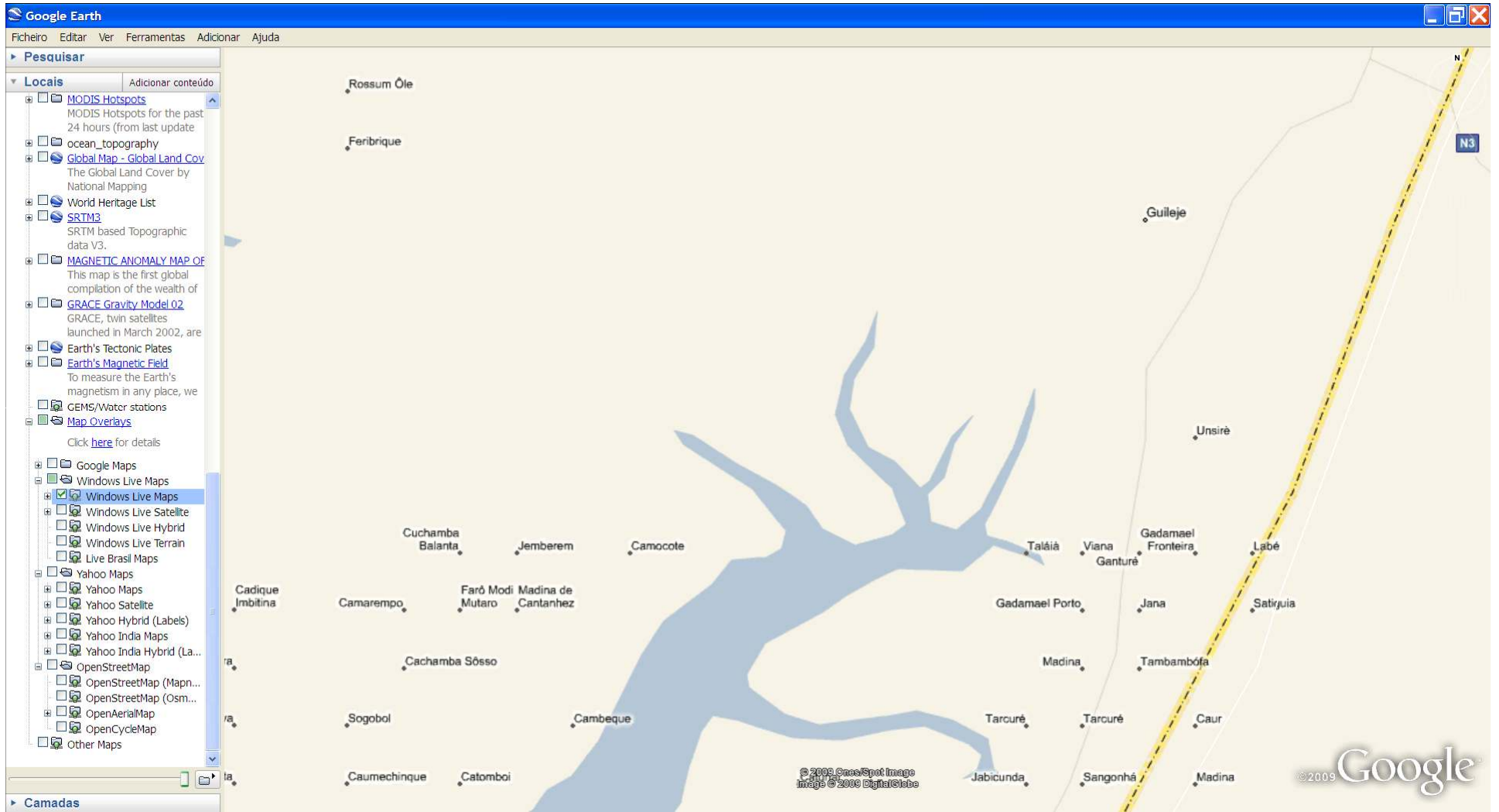


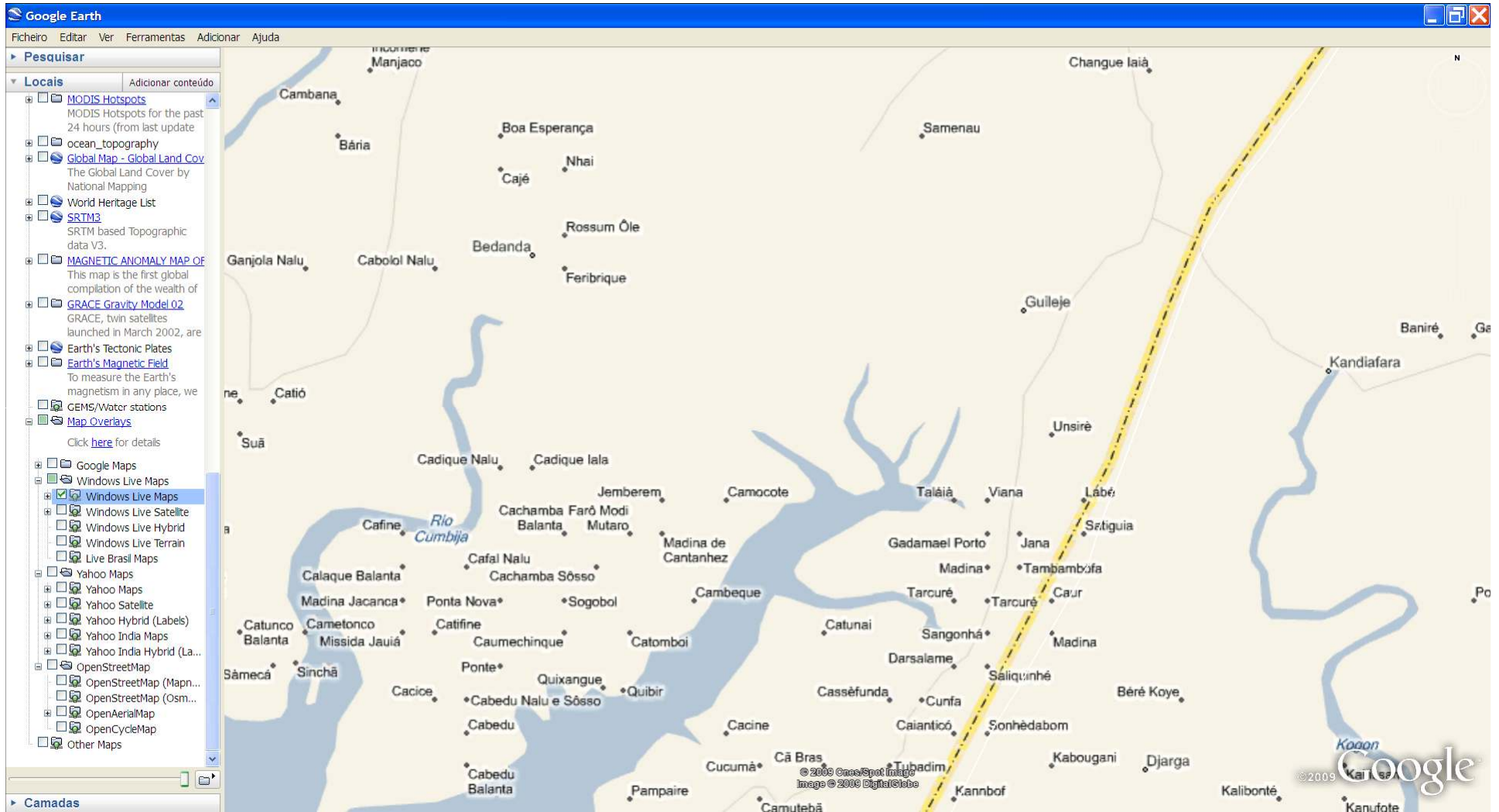
Imagem de Satélite (Geo-browser Microsoft Live Maps)



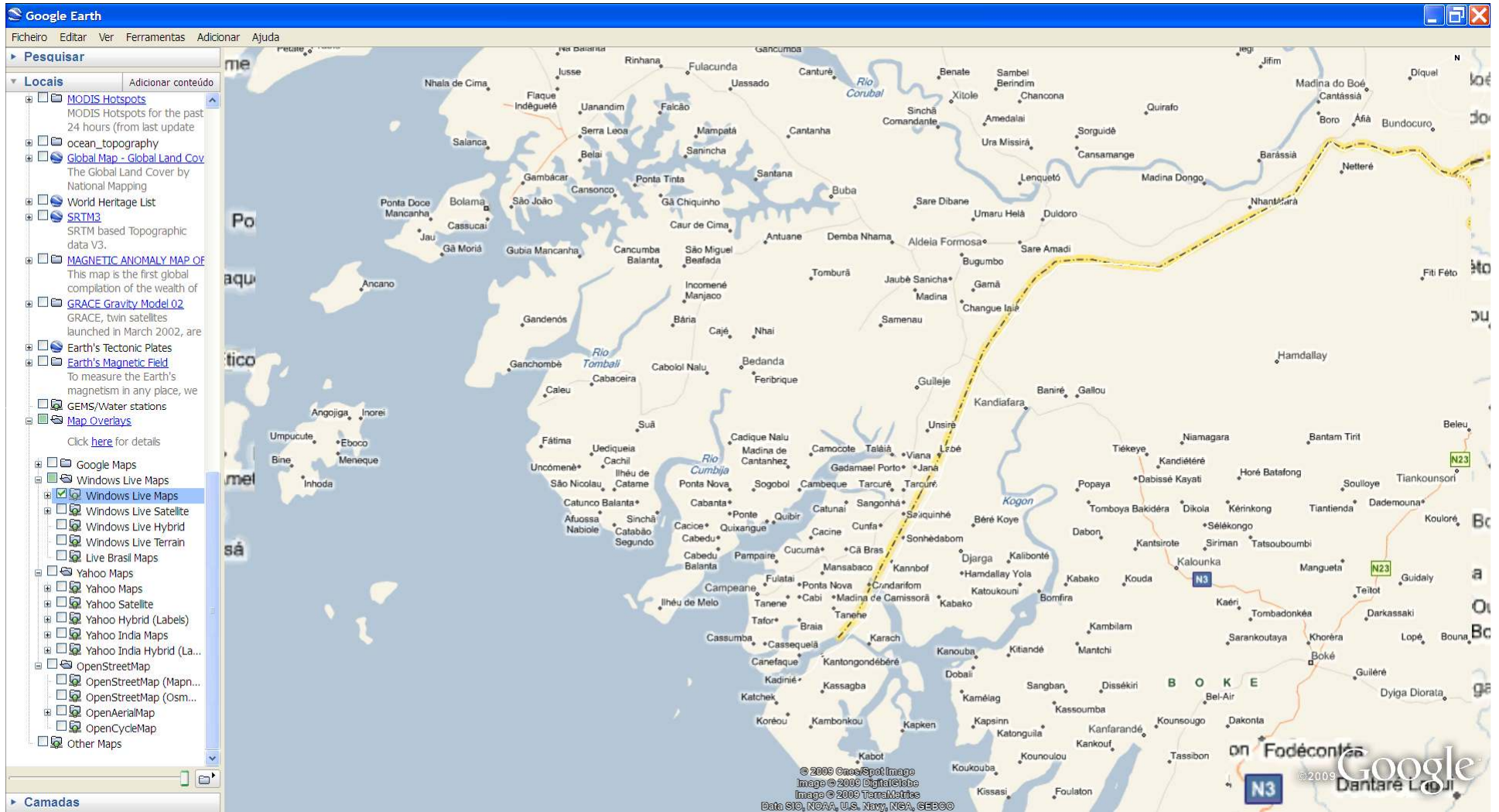
Base de mapas (Geo-browser Yahoo)



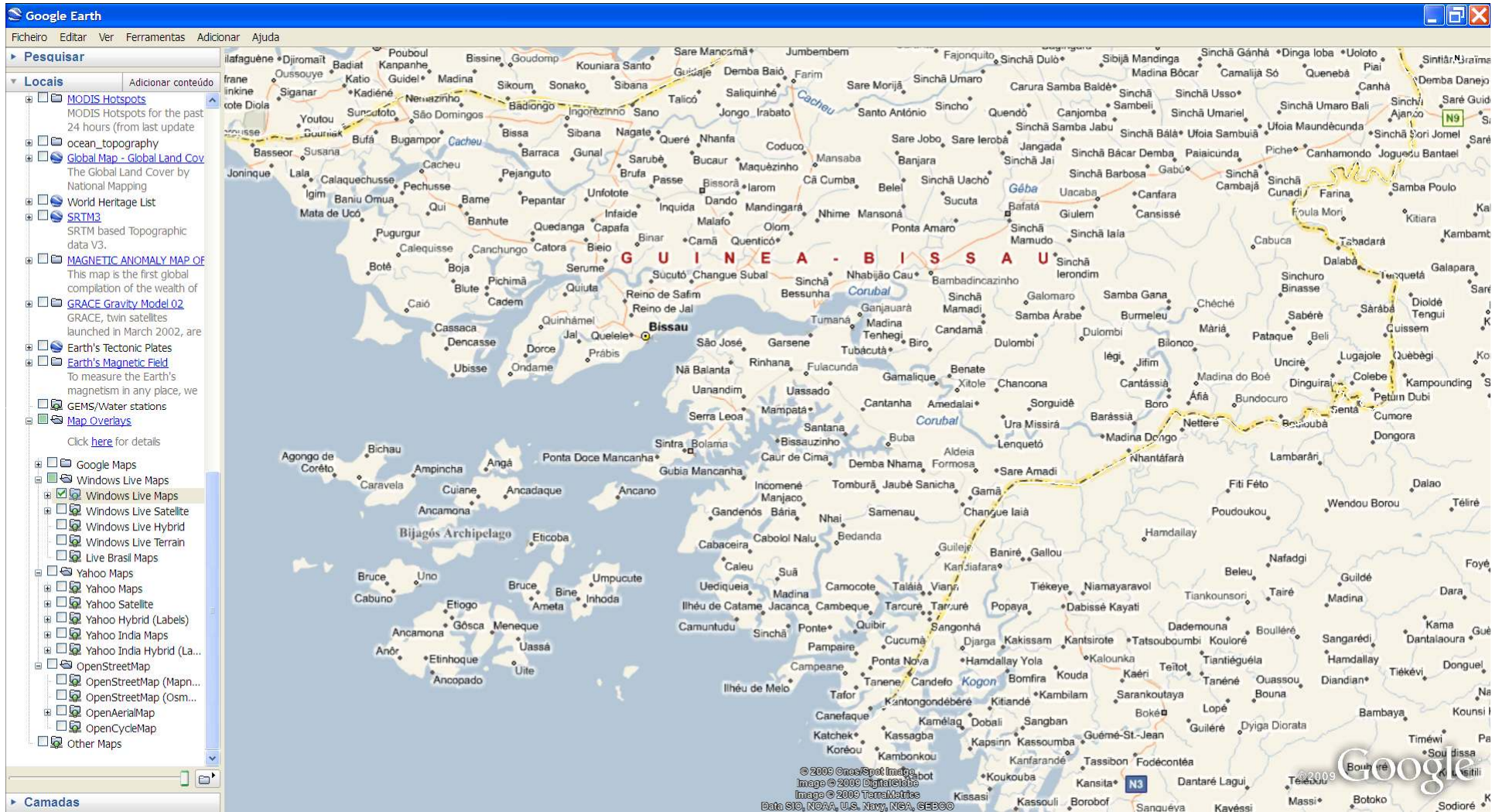
Base de mapas (Geo-browser Microsoft Live Maps)



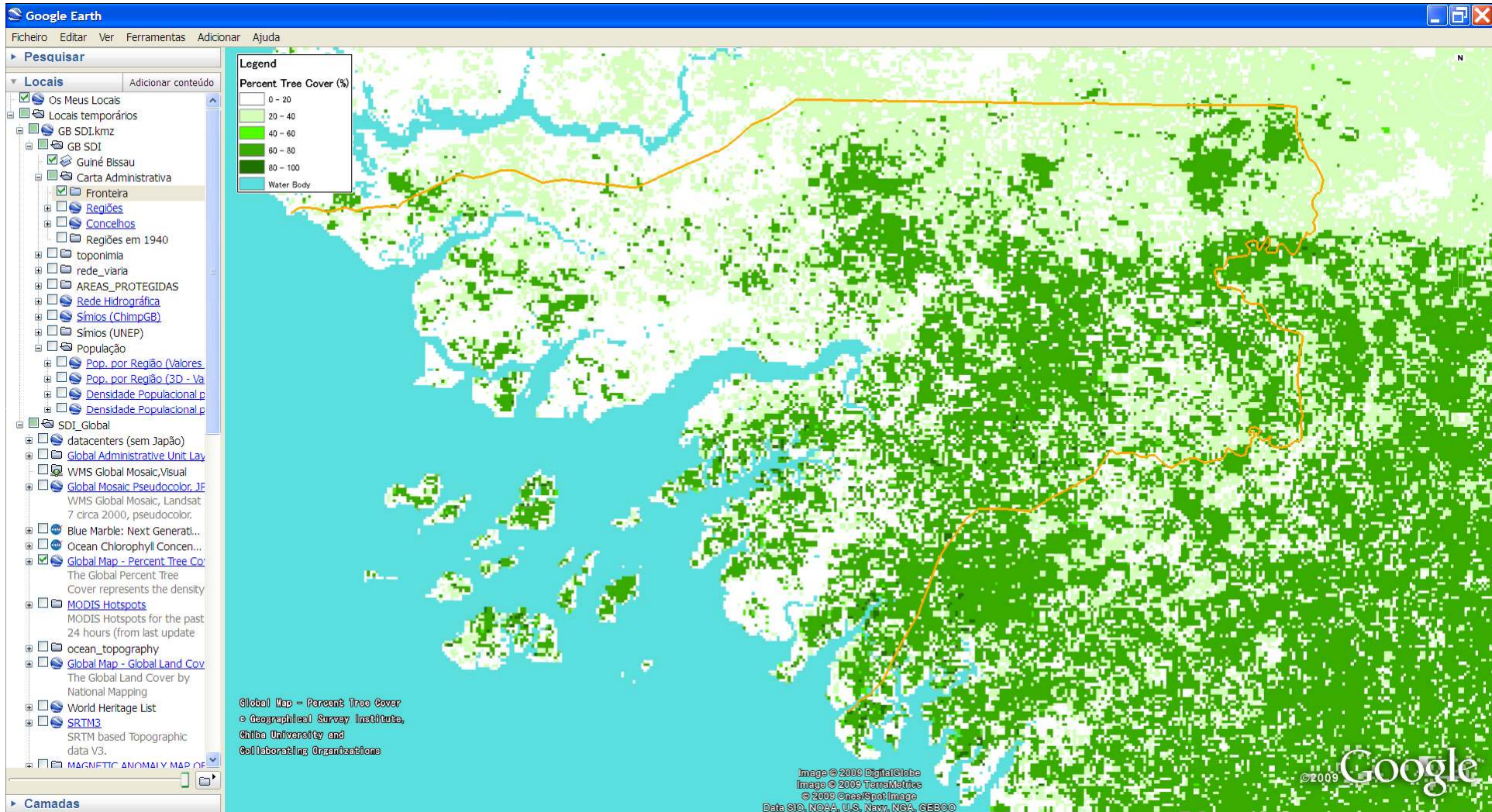
Base de mapas (Microsoft). Zoom out



Base de mapas (Microsoft). Zoom out



Base de mapas (Microsoft). Zoom out



Percent Tree Cover (Global Land Cover)

Pesquisar

- ▼ Locais
 - Os Meus Locais
 - Locais temporários
 - GB SDL.kmz
 - GB SDI
 - Guiné Bissau
 - Carta Administrativa
 - Fronteira
 - Regiões
 - Concelhos
 - Regiões em 1940
 - toponimia
 - rede_viaria
 - AREAS_PROTEGIDAS
 - Rede Hidrográfica
 - Símios (ChimpGB)
 - Símios (UNEP)
 - População
 - Pop. por Região (Valores)
 - Pop. por Região (3D - Va
 - Densidade Populacional p
 - Densidade Populacional p
- SDL Global
 - datacenters (sem Japão)
 - Global Administrative Unit Lay
 - WMS Global Mosaic, Visual
 - Global Mosaic Pseudocolor, JF
 - WMS Global Mosaic, Landsat 7 circa 2000, pseudocolor.
 - Blue Marble: Next Generati...
 - Ocean Chlorophyll Concen...
 - Global Map - Percent Tree Co
 - The Global Percent Tree Cover represents the density
 - MODIS Hotspots
 - MODIS Hotspots for the past 24 hours (from last update
 - ocean_topography
 - Global Map - Global Land Cov
 - The Global Land Cover by National Mapping
 - World Heritage List
 - SRTM3
 - SRTM based Topographic data V3.
 - MAGNETIC ANOMALY MAP OF

Legend

Global Map (Land Cover)

	Broadleaf Evergreen Forest		Herbaceous, single layer		Mangrove
	Erodeleaf Deciduous Forest		Herbaceous with Sparse Trees/Shrub		Wetland
	Needleleaf Evergreen Forest		Sparse Vegetation		Bare area, consolidated (gravel/rock)
	Needleleaf Deciduous Forest		Cropland		Bare area, unconsolidated (sand)
	Mixed Forest		Paddy field		Urban
	Tree Coen		Cropland/Natural Vegetation Mosaic		Snow/Ice
					Water Bodies

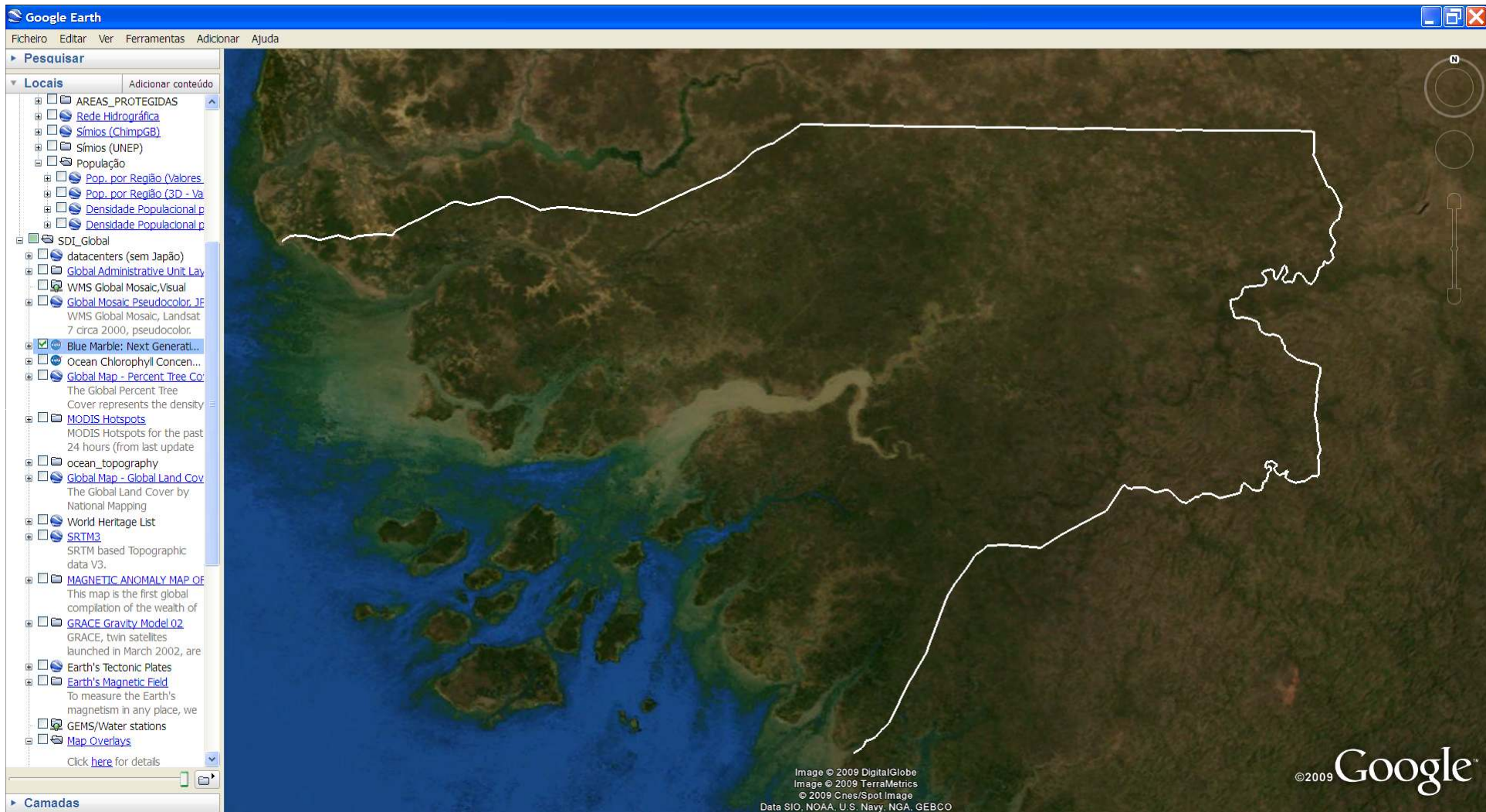


Global Map - Land Cover (GLCND)
 © Geographical Survey Institute,
 China University and
 Collaborating Organizations

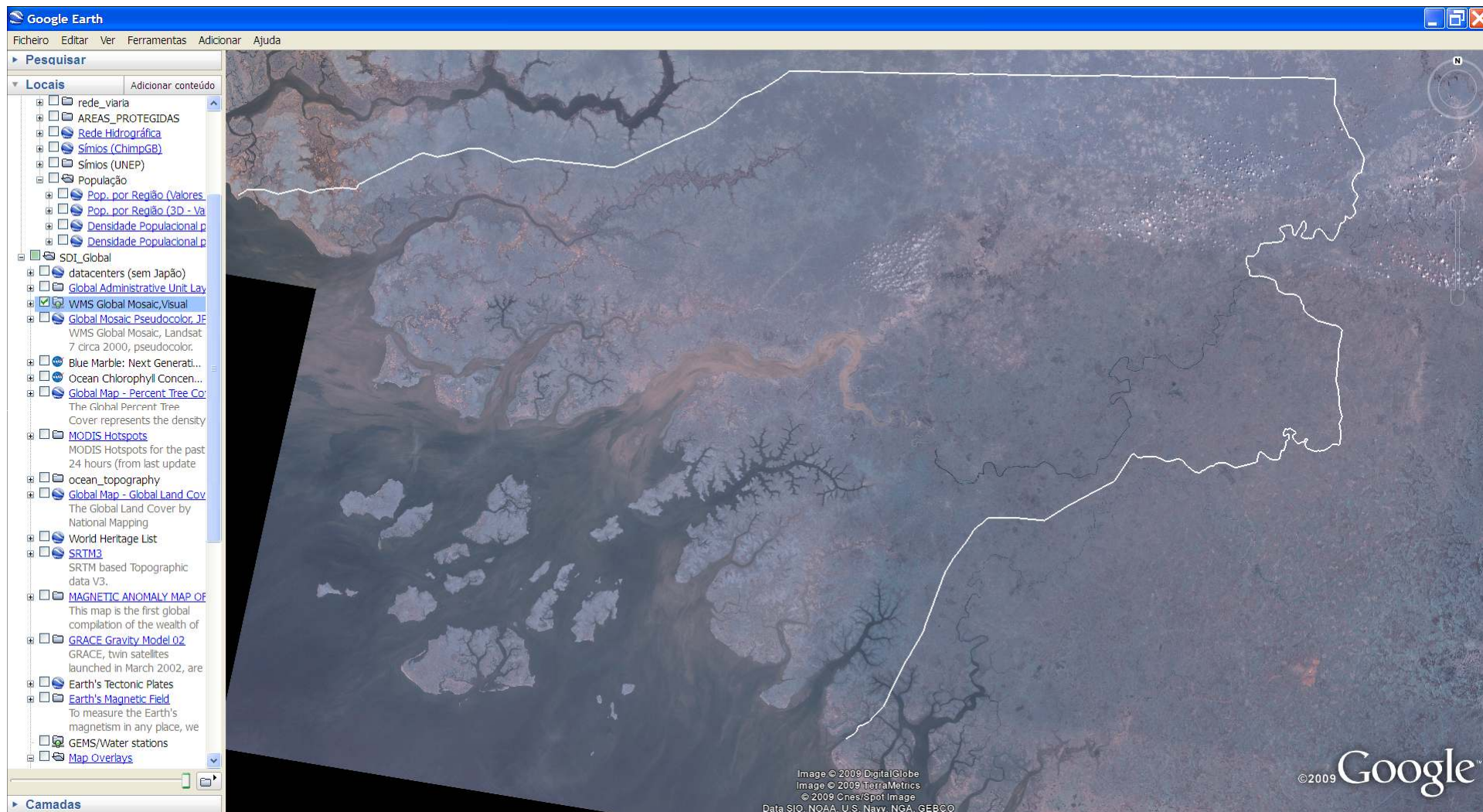
Image © 2009 DigitalGlobe
 Image © 2009 TerraMetrics
 © 2009 OneStepImage
 Data SIO, NOAA, U.S. Navy, NGA, GEBCO

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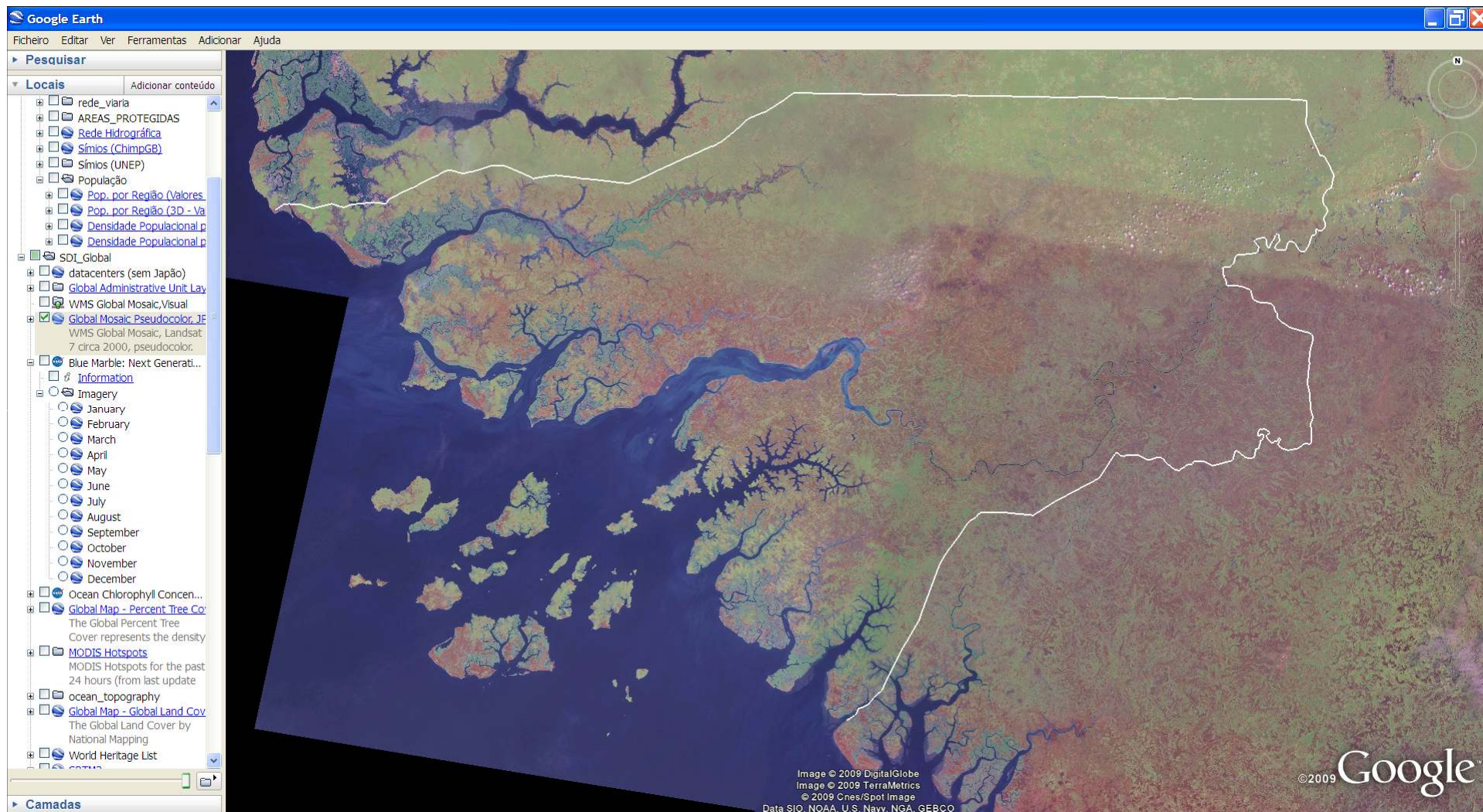
Global Land Cover



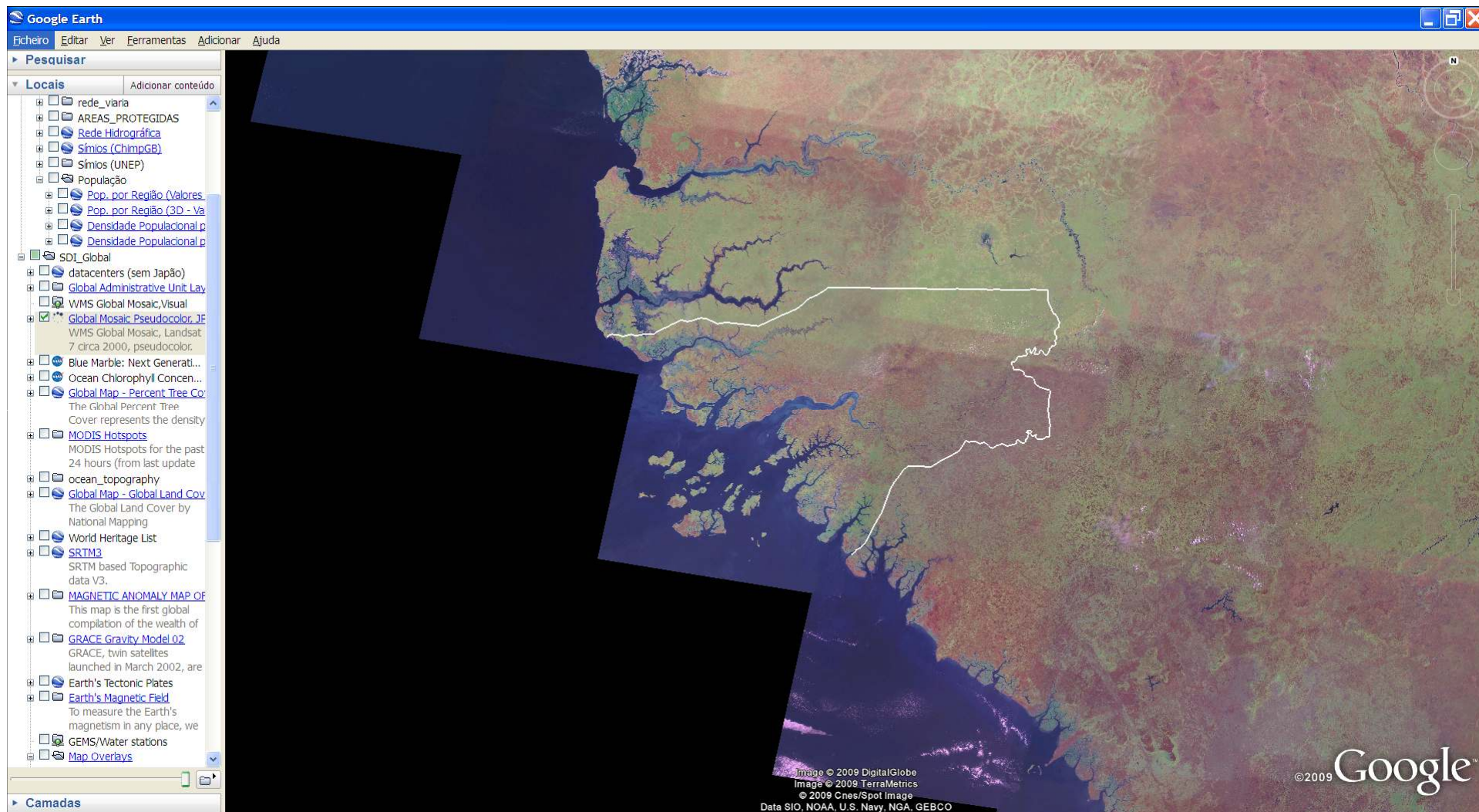
Visualização Blue Marble



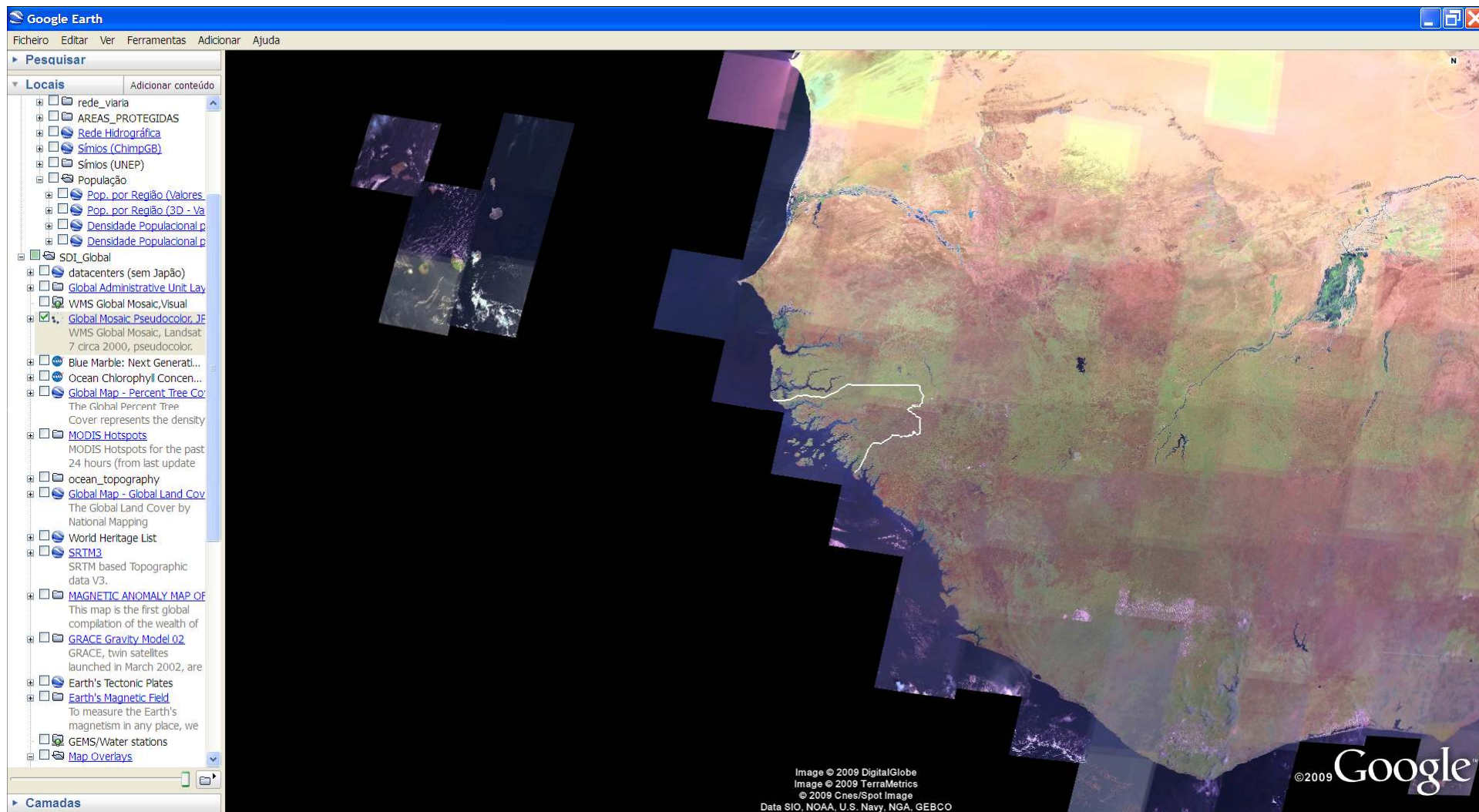
Visualização Landsat (Global Mosaic – Visível)



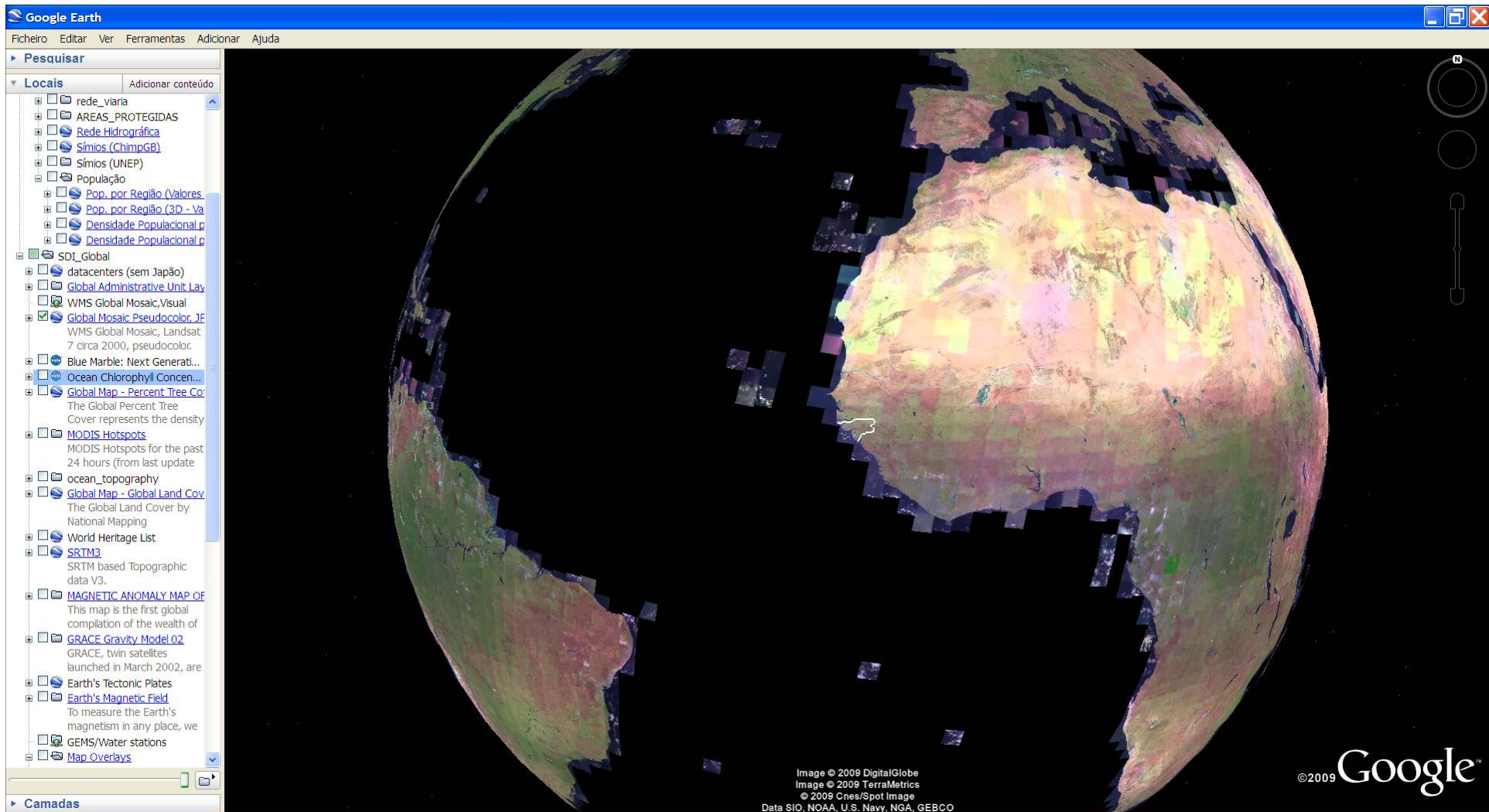
Visualização Landsat (Global Mosaic – falsa cor)



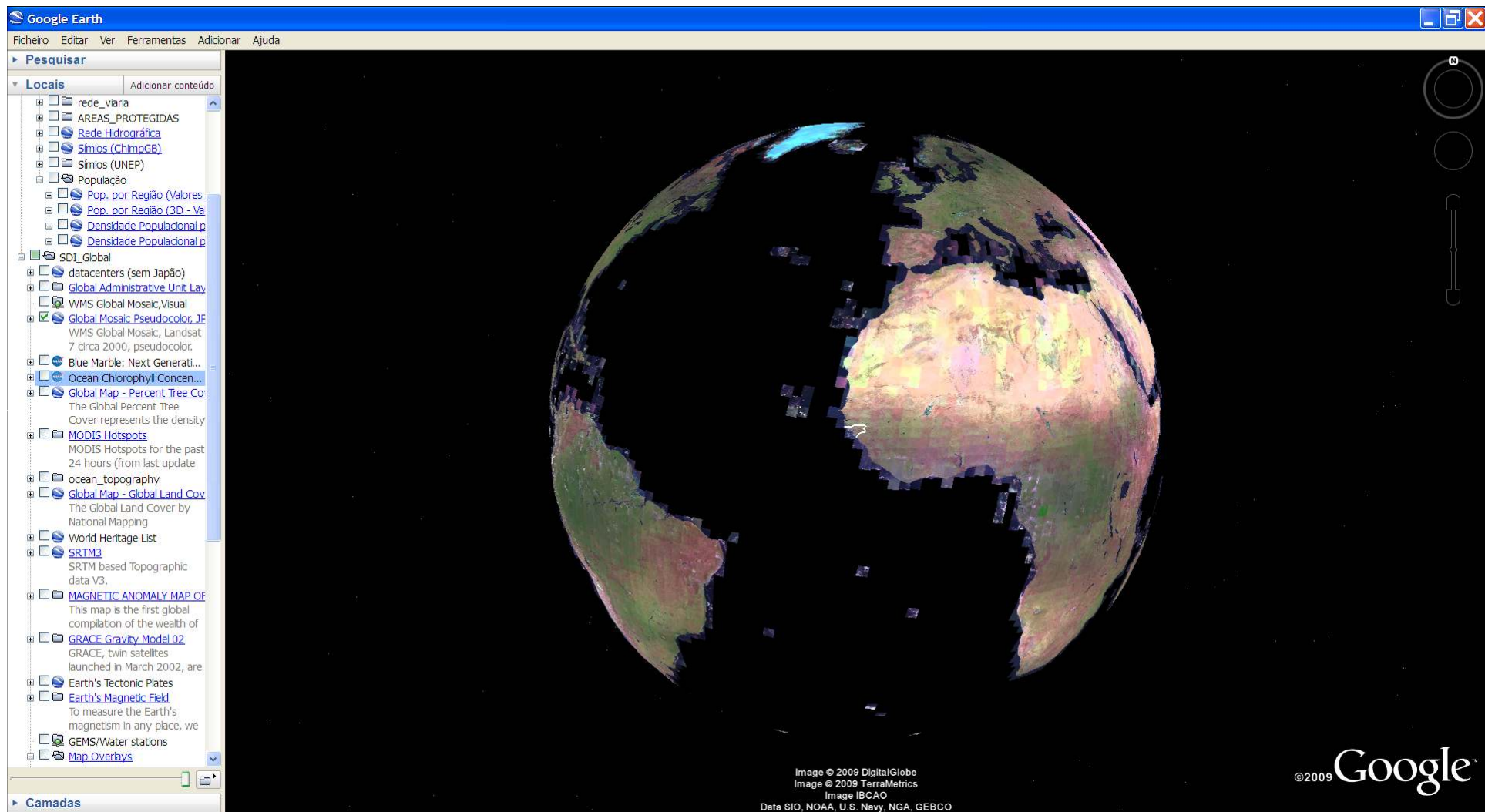
Visualização Landsat (Global Mosaic – falsa cor). Zoom out



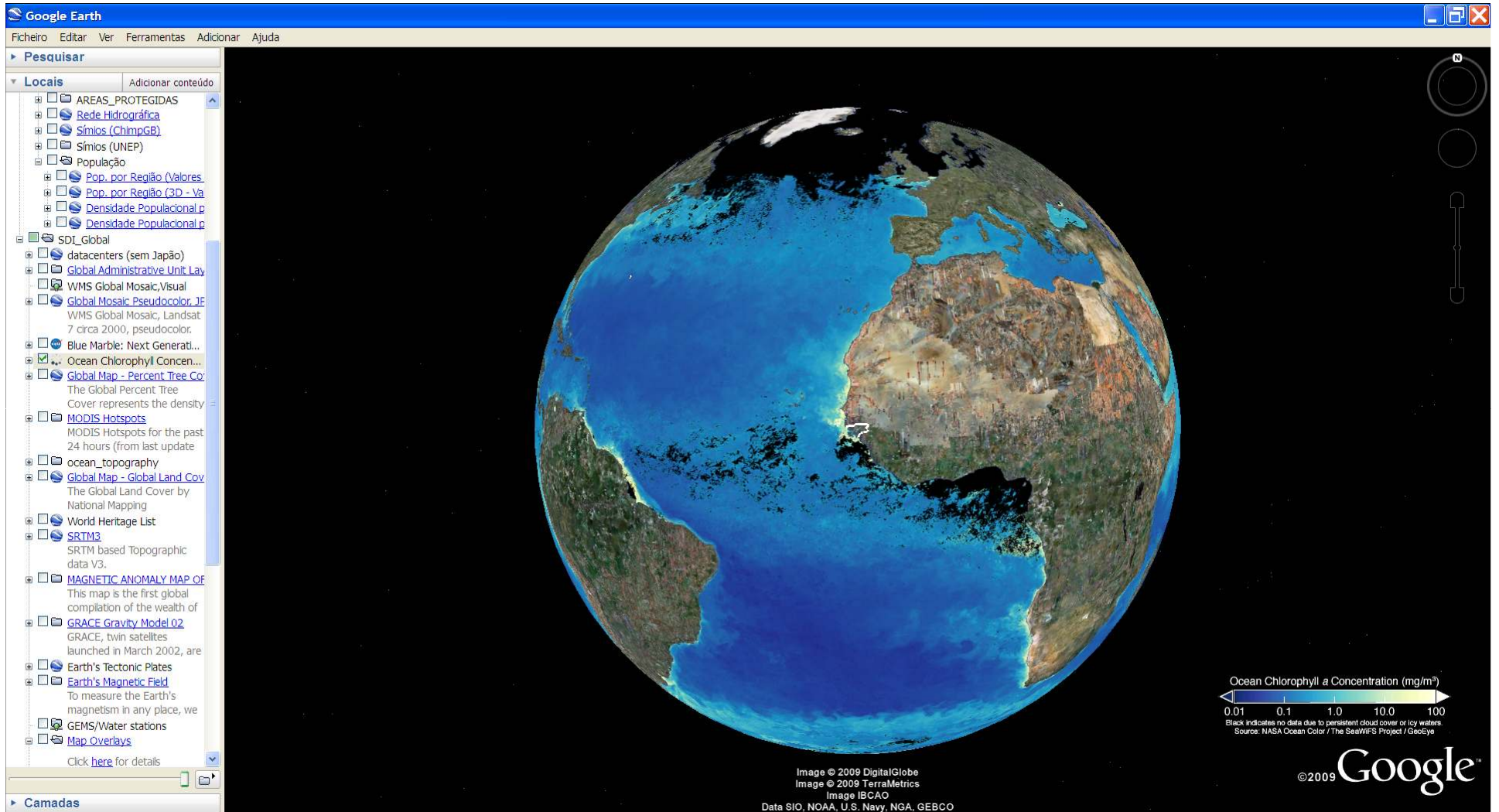
Visualização Landsat (Global Mosaic – falsa cor). Zoom out



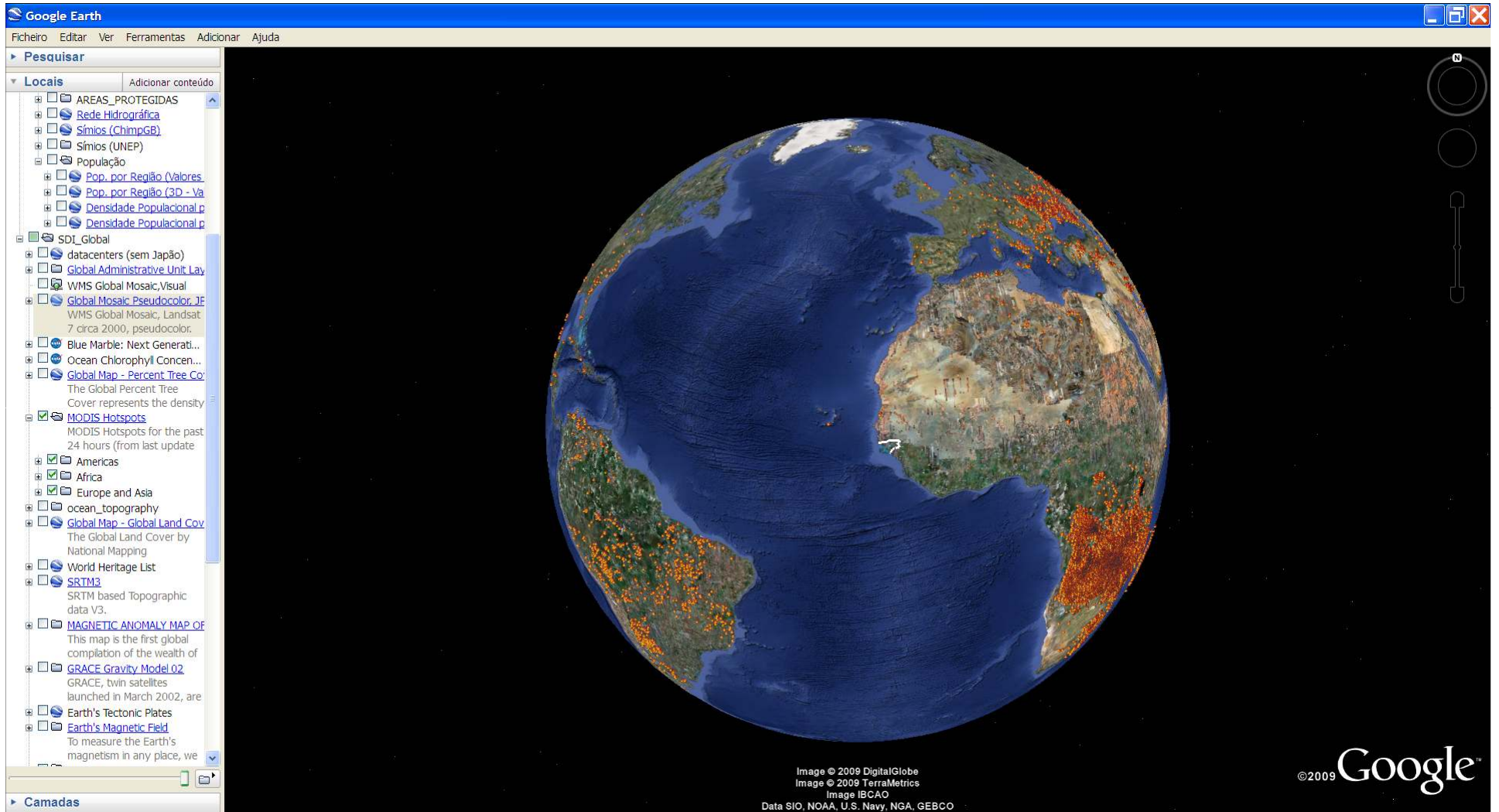
Visualização Landsat (Global Mosaic – falsa cor). Zoom out



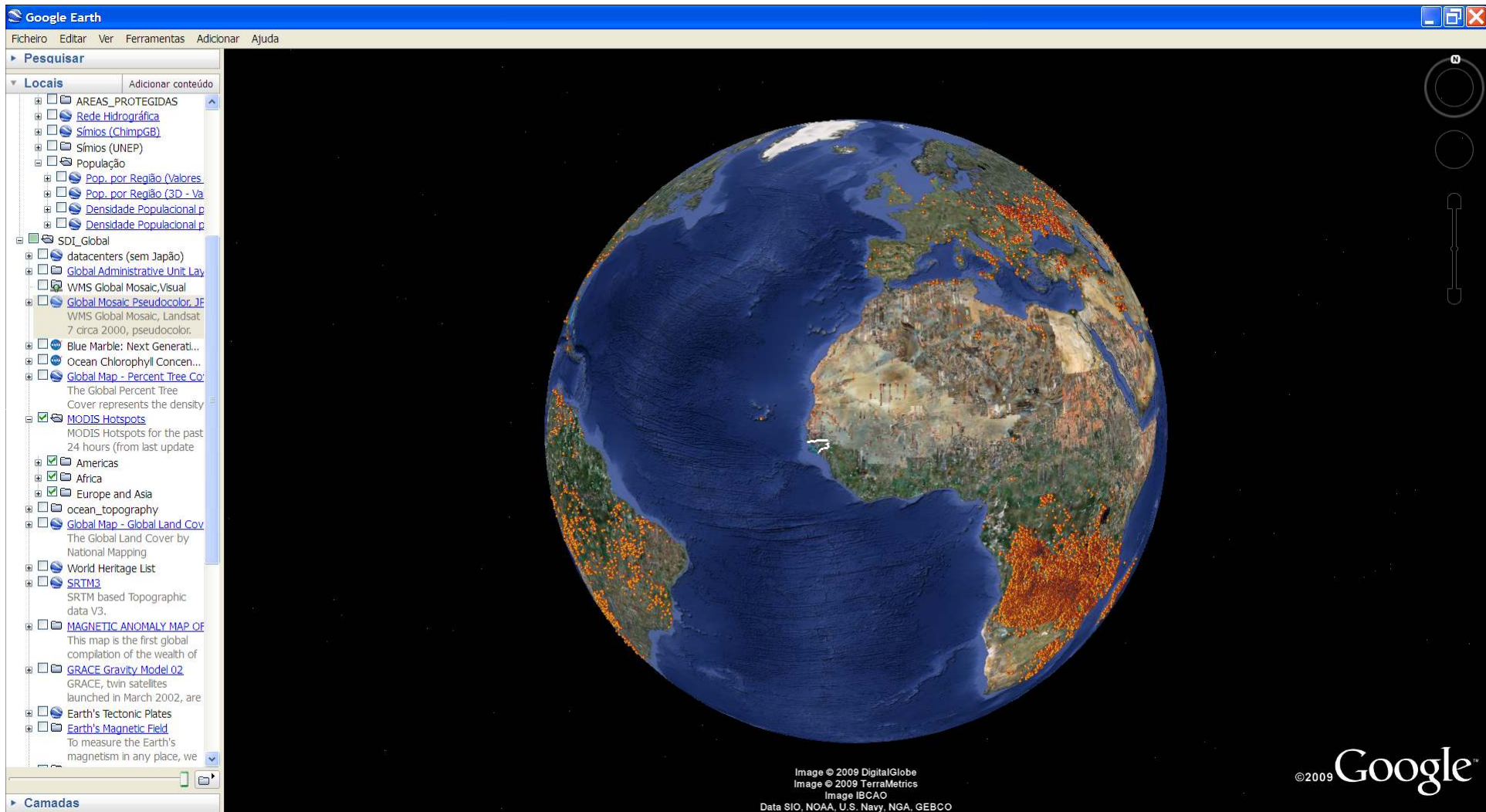
Visualização Landsat (Global Mosaic – falsa cor). Zoom out



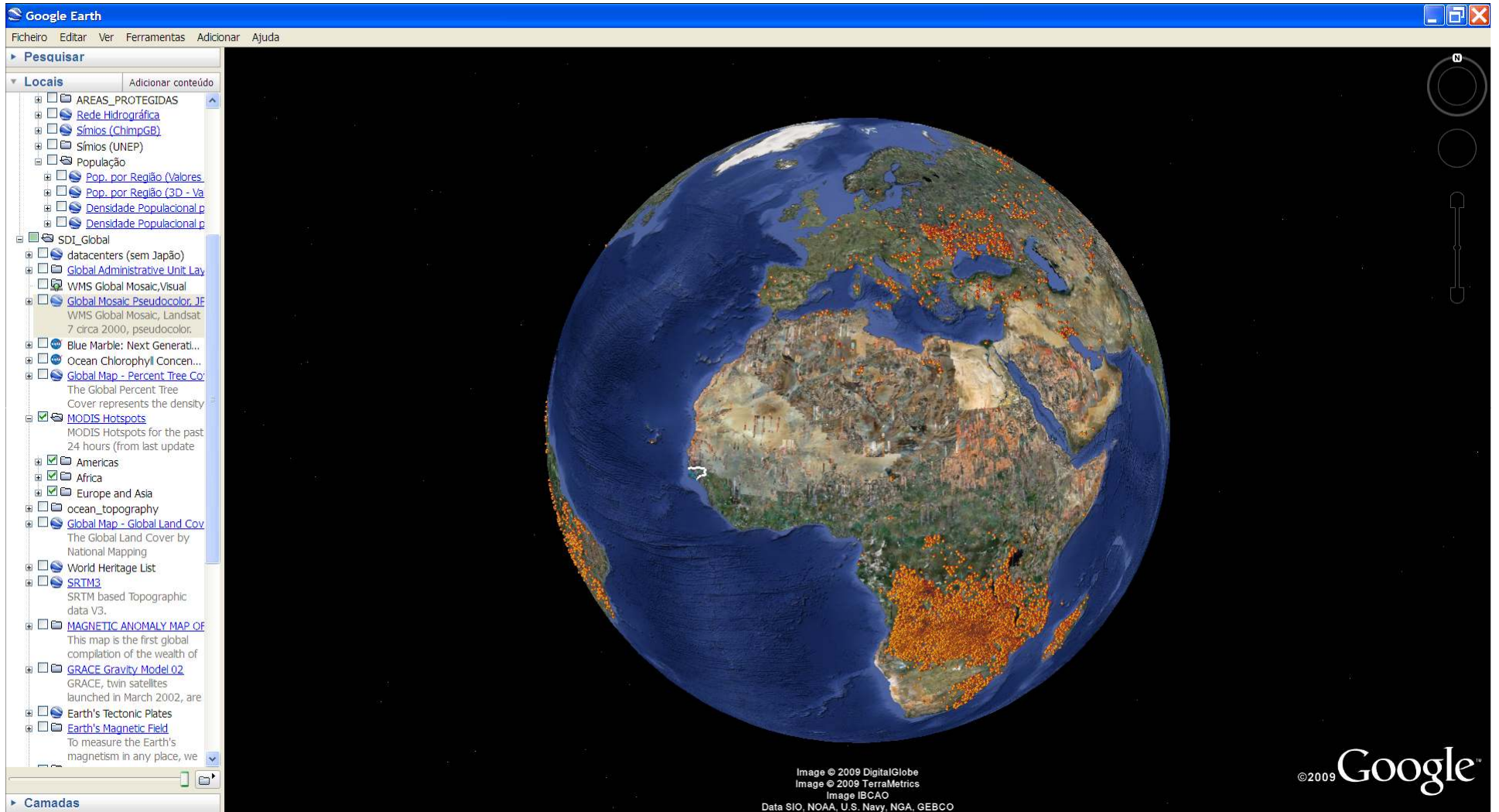
Concentração de Clorofila no Oceano (NASA)



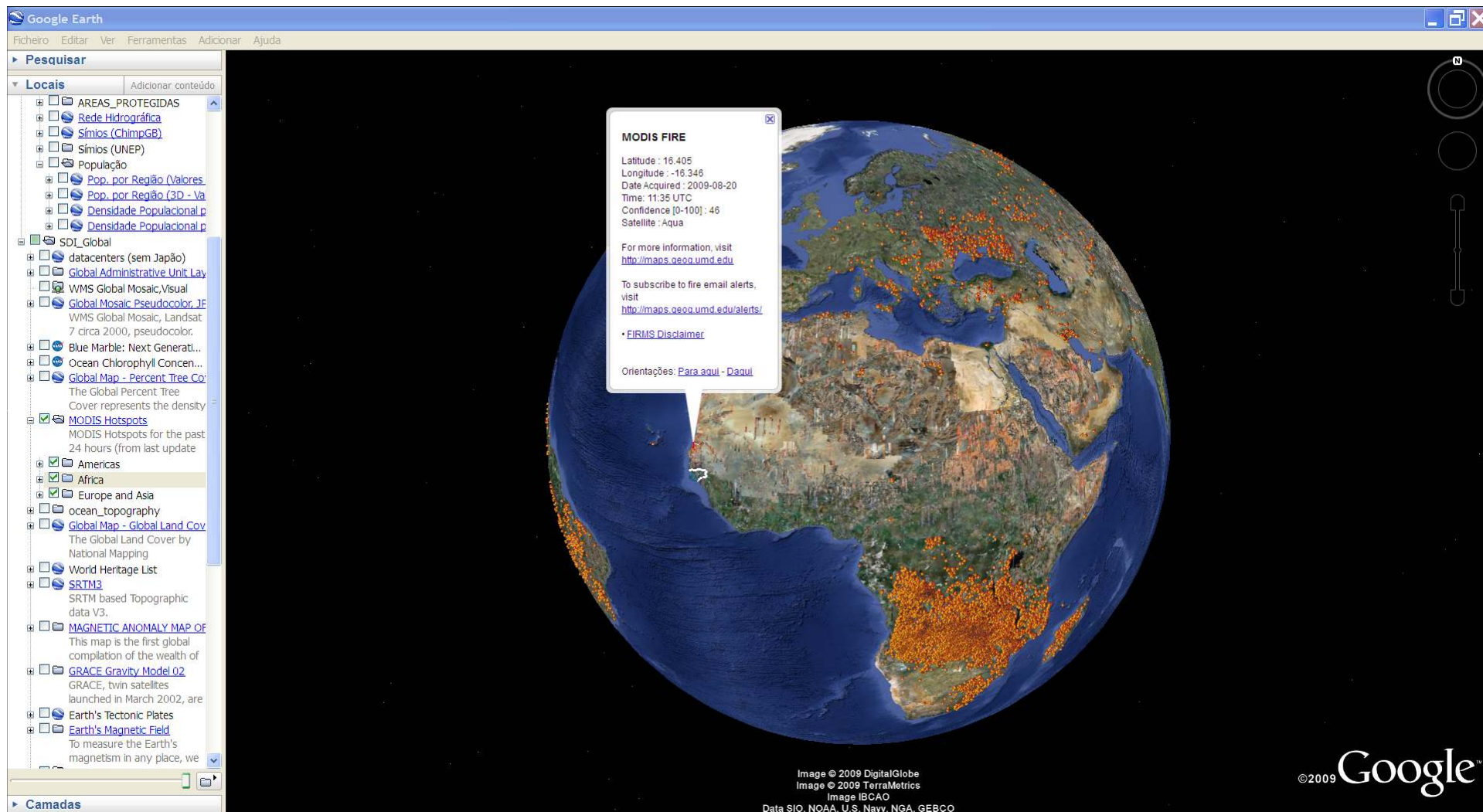
FIRMS Hotspots 24 h (sensor MODIS dos Satélites Aqua e Terra)



FIRMS Hotspots 24 h (sensor MODIS dos Satélites Aqua e Terra)



FIRMS Hotspots 24 h (sensor MODIS dos Satélites Aqua e Terra)



FIRMS Hotspots 24 h (sensor MODIS dos Satélites Aqua e Terra). Informação alfanumérica associada

Google Earth

Ficheiro Editar Ver Ferramentas Adicionar Ajuda

Pesquisar

Locais Adicionar conteúdo

- AREAS_PROTEGIDAS
 - Rede Hidrográfica
 - Símios (ChimpGB)
 - símios (UNEP)
 - População
 - Pop. por Região (Valores)
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 - MAGNETIC ANOMALY MAP OF
 - This map is the first global compilation of the wealth of
 - GRACE Gravity Model 02
 - GRACE, twin satellites launched in March 2002, are
 - Earth's Tectonic Plates
 - Earth's Magnetic Field
 - To measure the Earth's magnetism in any place, we
 - GEMS/Water stations
 - Map Overlays

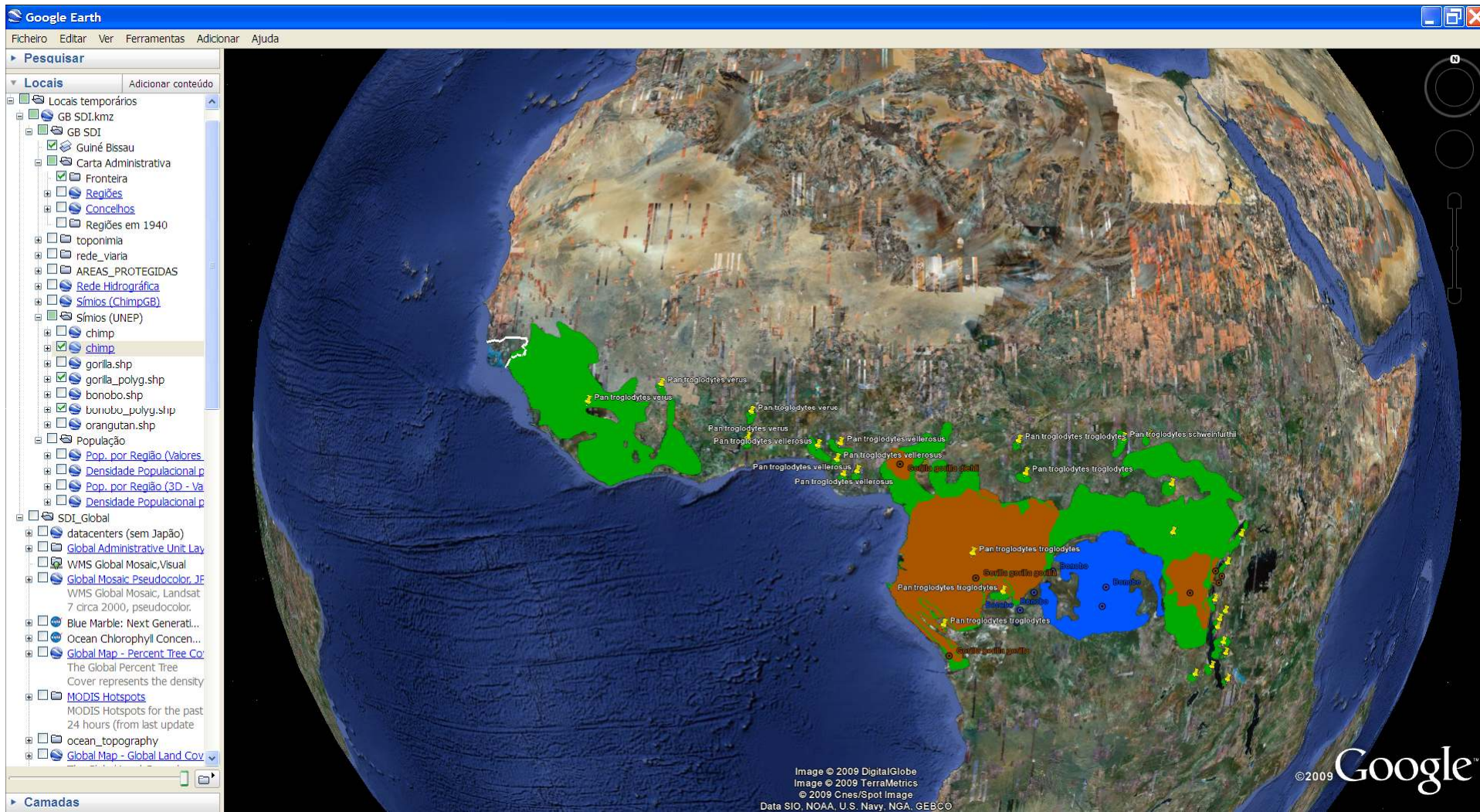
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Camadas

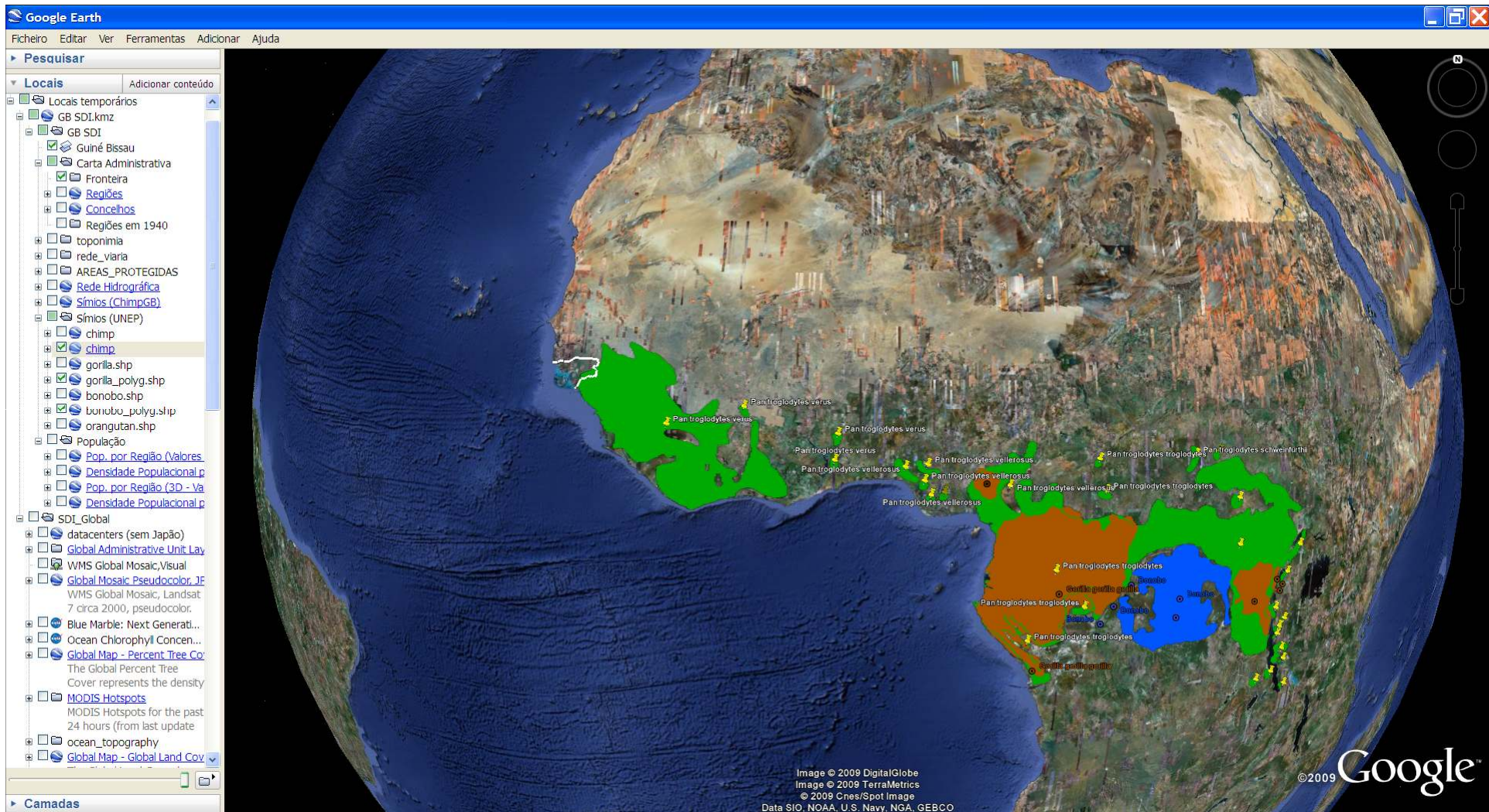
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Image IBCAO
Data SIO, NOAA, U.S. Navy, NGA, GEBCO

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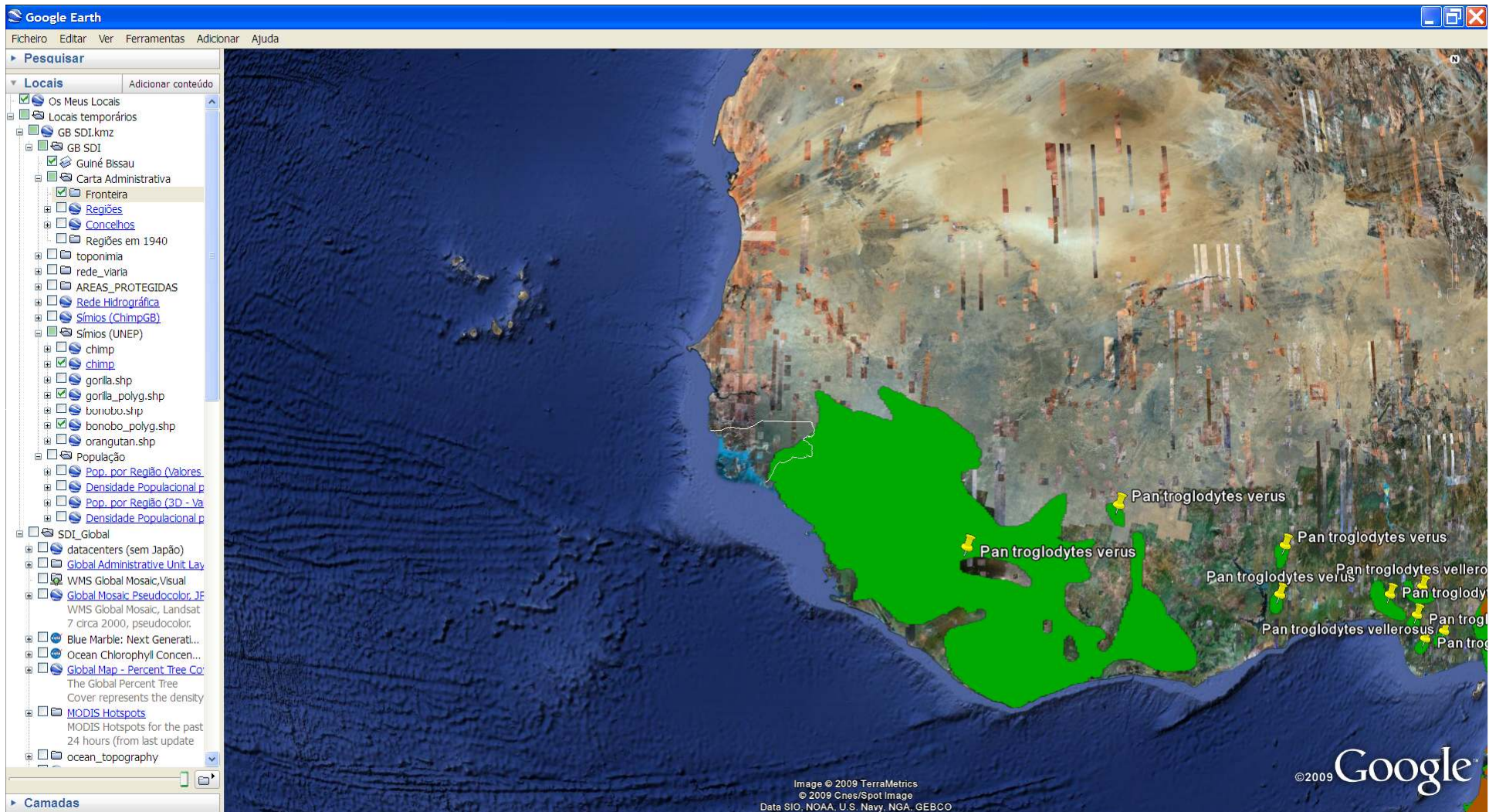
Património mundial da UNESCO



Símios (projecto GRASP – UNEP). Polígonos de distribuição espacial



Símios (projecto GRASP – UNEP). Polígonos de distribuição espacial



Símios (projecto GRASP – UNEP). Polígonos de distribuição espacial