

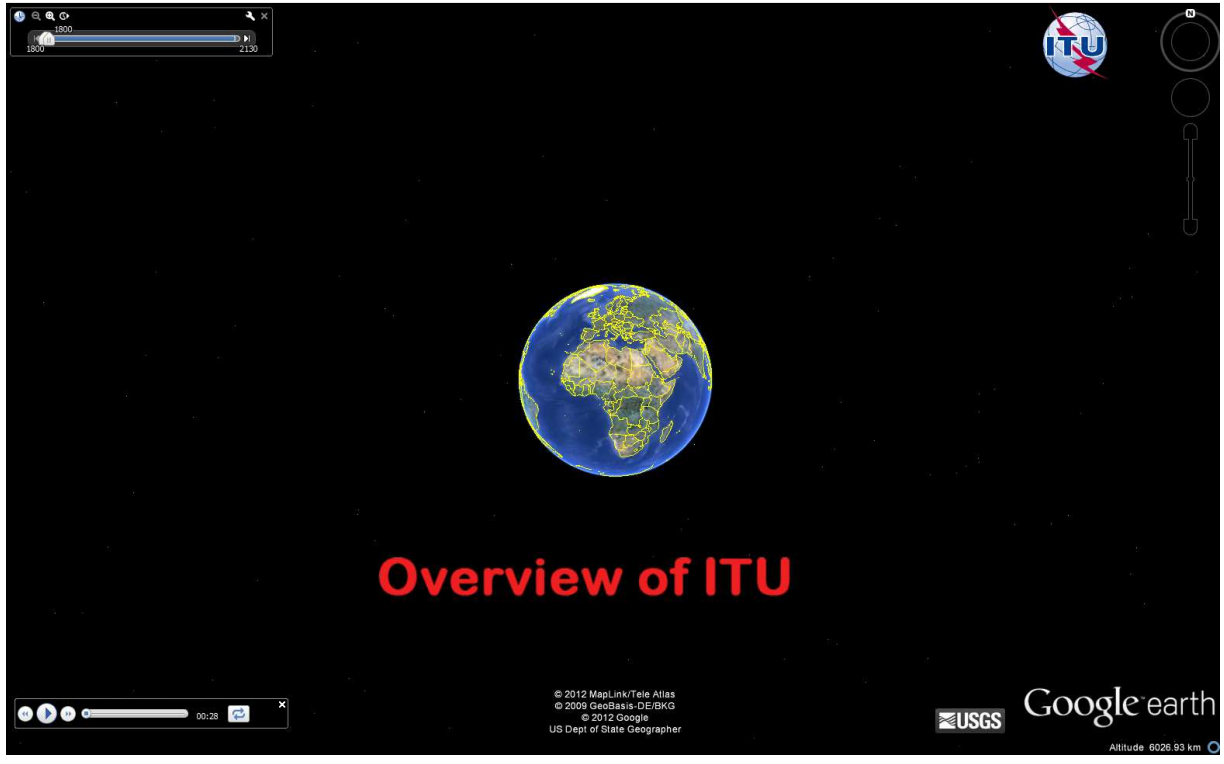


**ITU Multi-stakeholder Forum on
Emergency Telecommunications**

Bogota, Colombia, 24-26 July 2012



Dr. Cosmas L. Zavazaña
Chief, Project Support and Knowledge Management Department
International Telecommunication Union



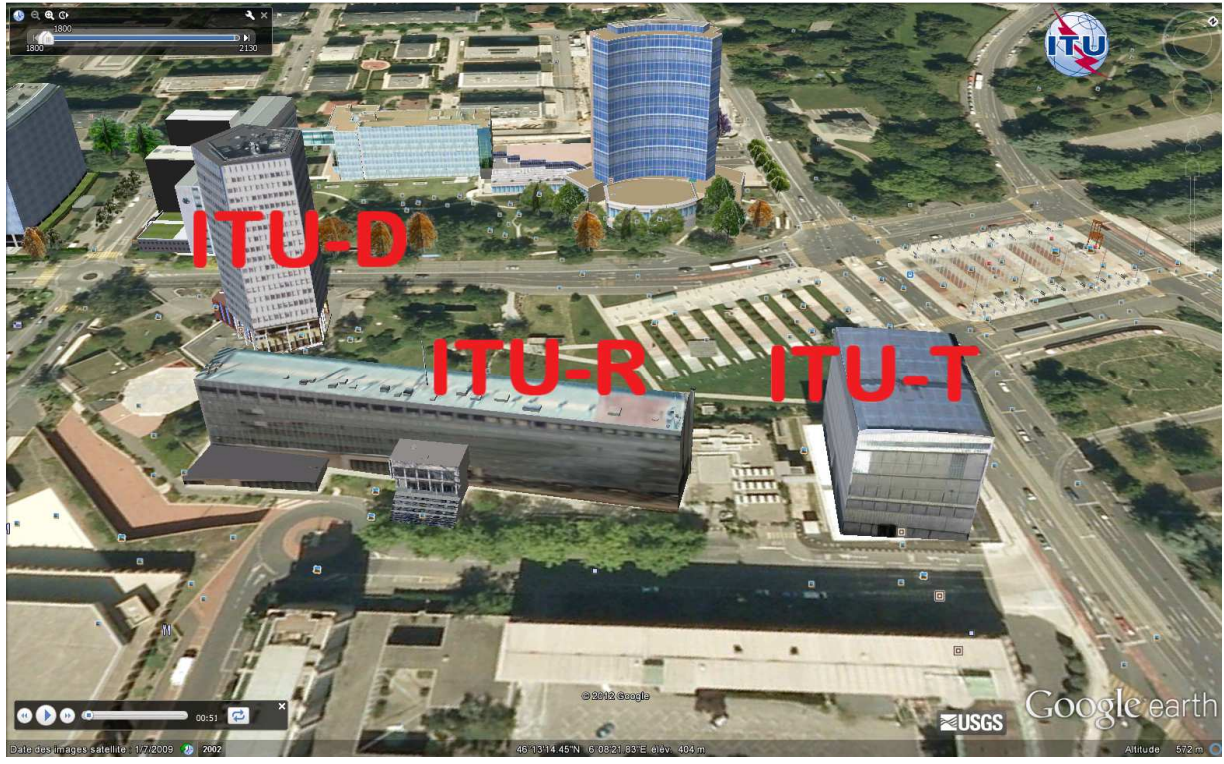
Overview of ITU

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Google earth

Altitude 0026.93 km





The image is a screenshot of a Google Earth window. In the center, a globe of the Earth is shown against a black background. Below the globe, the text "Importance of Emergency telecommunications" is displayed in a large, bold, red font. The interface includes a top toolbar with a search bar and a vertical scale on the right. A bottom toolbar shows a play button and a timer set to 01:06. In the bottom right corner, the "USGS" logo and "Google earth" text are visible. The bottom center contains copyright information: "© 2012 Google, US Dept of State Geographer, Data SIO, NOAA, U.S. Navy, NGA, GEBCO, © 2012 Inav/Geosistemas SRL" and coordinates "14°55'31.46\" S 158°11'02.92\" O elev.-5088 m". The bottom right corner also shows "Altitude 63621.88 km".

Importance of Emergency telecommunications

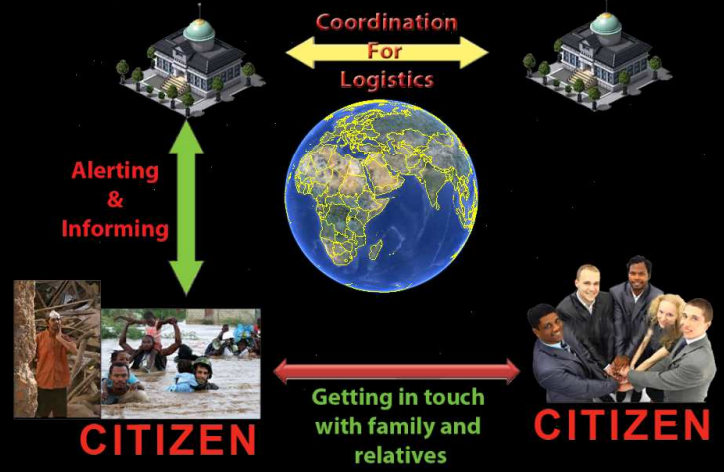
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14°55'31.46" S 158°11'02.92" O elev.-5088 m

USGS Google earth
Altitude 63621.88 km



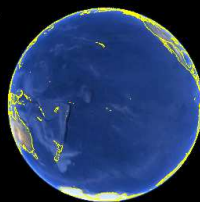
FOUR COMMUNICATION SCENARIOS

AUTHORITY AUTHORITY





REALITY CHECK...



...DISASTERS ON THE RISE

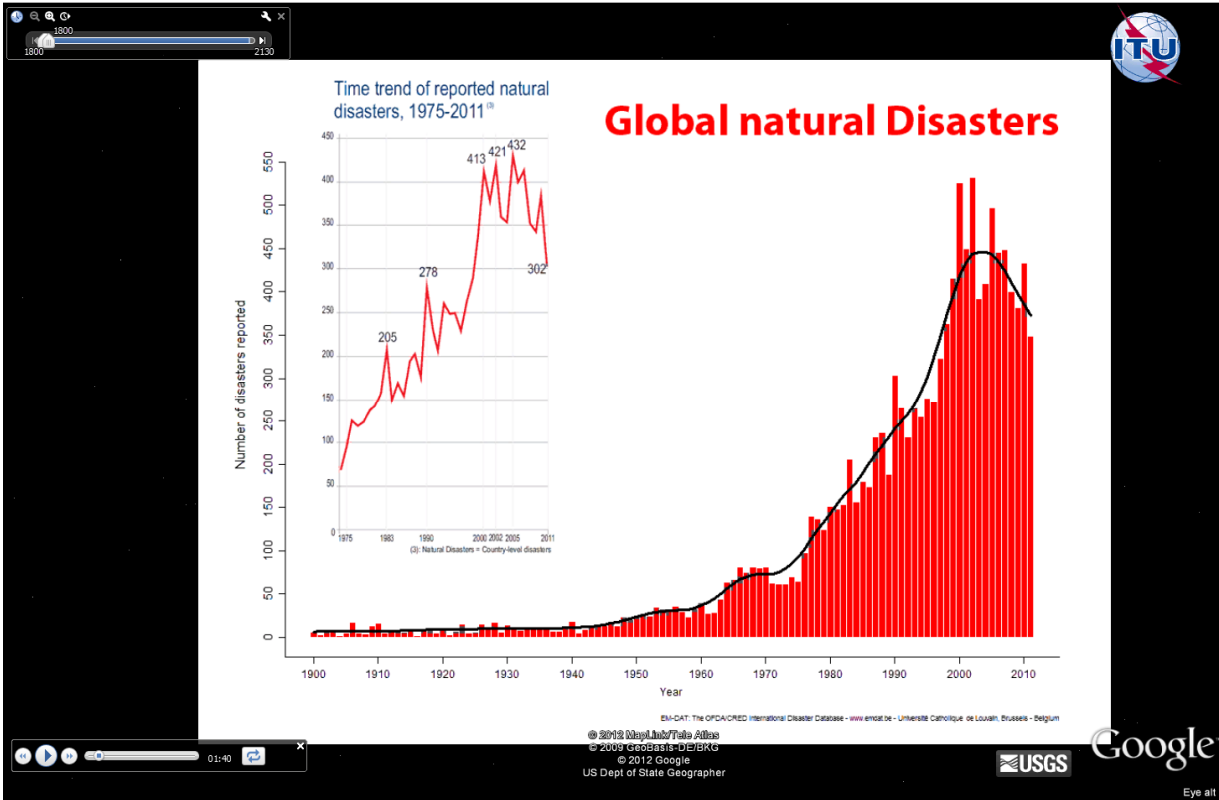


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14°39'19.26"S 152°24'17.29"O elev. -3578 m



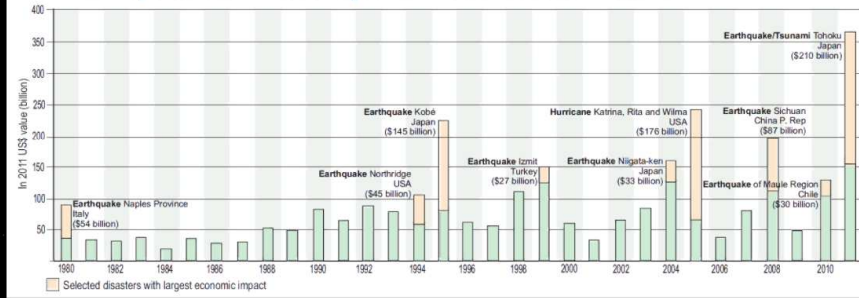
Google earth

Altitude 63621.67 km





Annual reported economic damages from natural disasters: 1980-2011



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8°50'57.45"N 22°51'02.22"E elev. 552 m



Altitude 63530.93 km

Rising Temperature : 1880-2011

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USGS Google earth

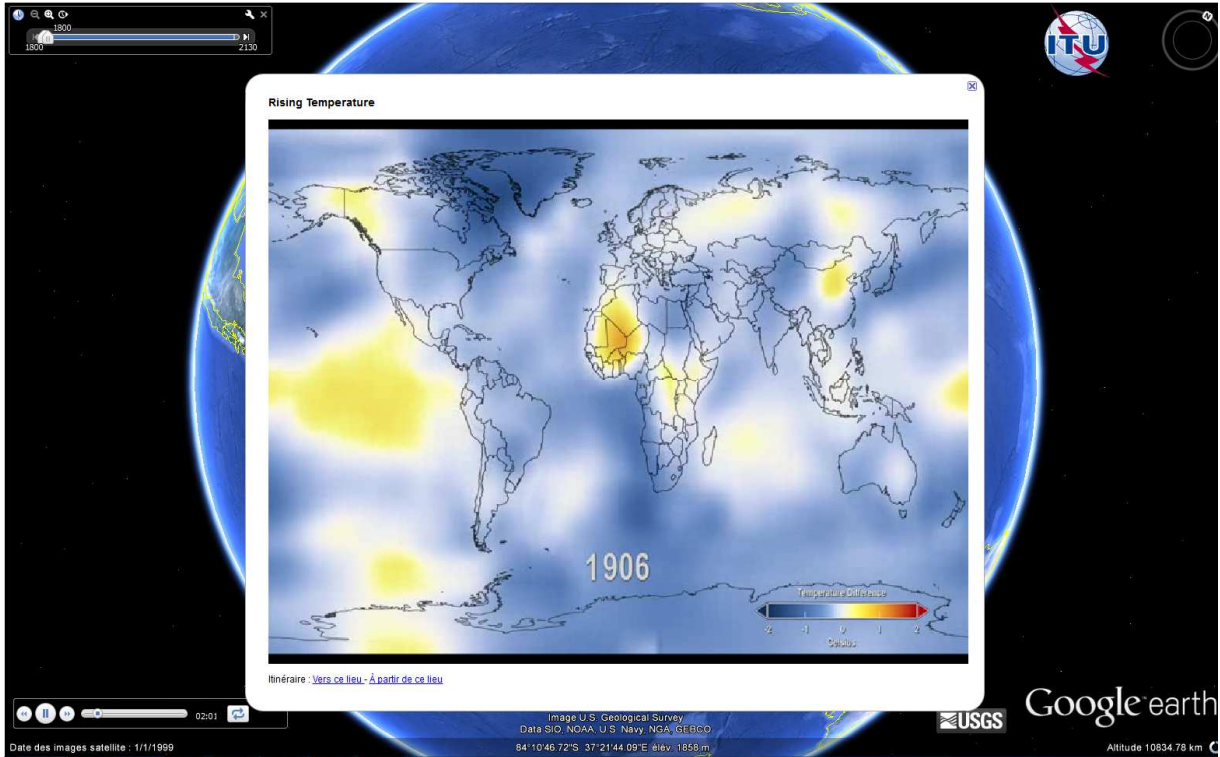
Altitude 63621.88 km

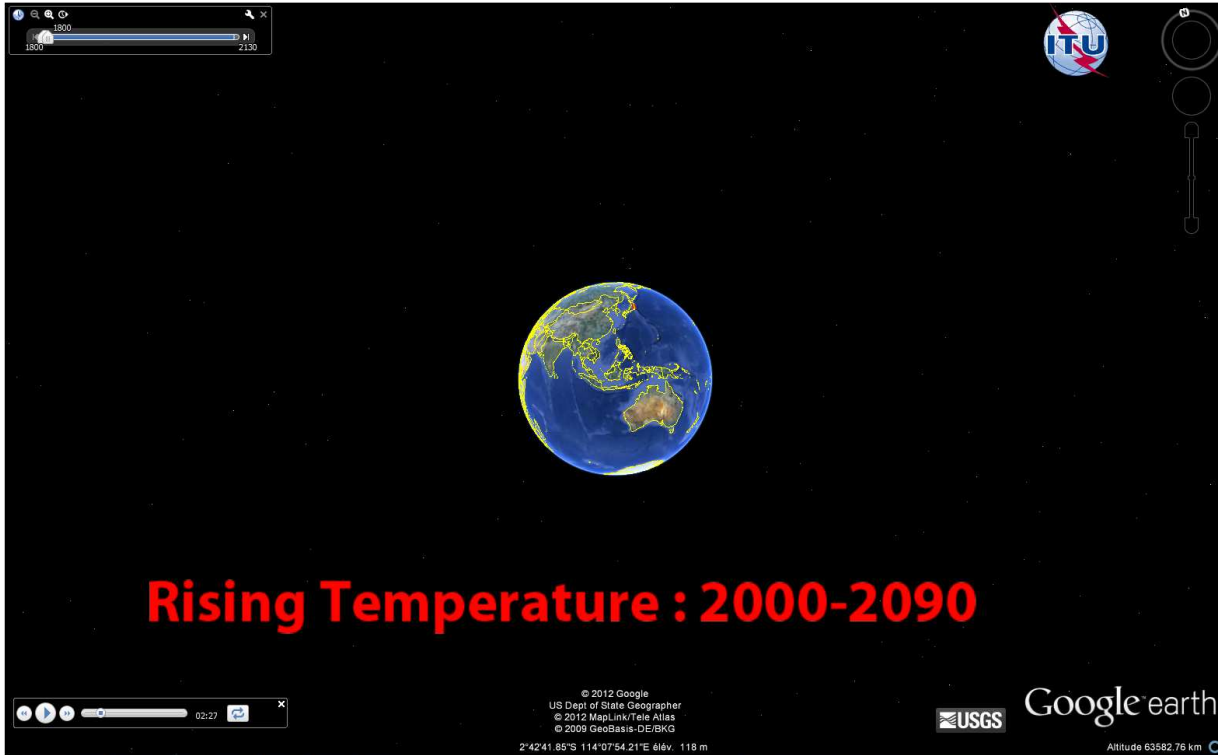
14°56'21.03"S 158°35'51.80"W elev. -5120 m

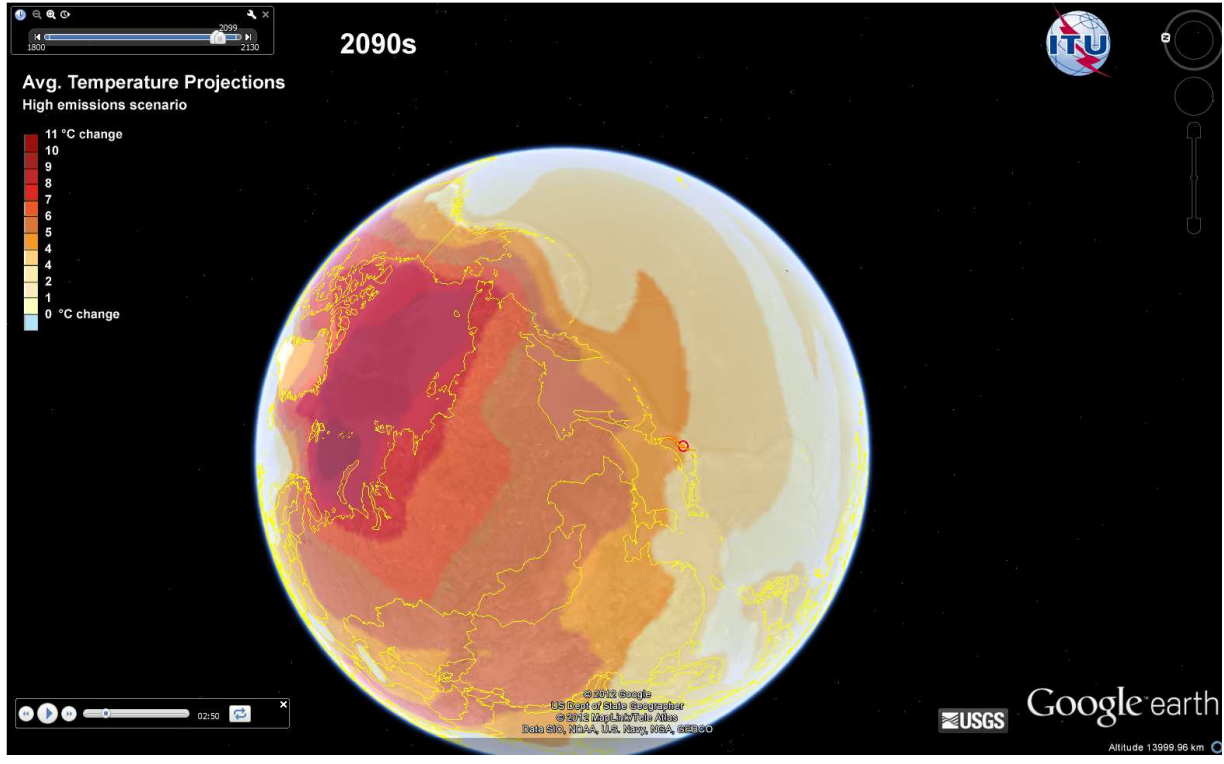
Timeline: 1800 to 2130

Timeline: 01:51

ITU logo









Climate Change: Effects

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Google earth

Altitude 15150.73 km

Crops
Reduction and decrease of soybean and rice yield.

Tropical cyclones
Tropical cyclone could be more intense and destructive. For major cyclone disasters flooding from storm surges has been the primary cause of death.

Marine
Marine ecosystems could be fundamentally altered by ocean acidification which would have a significant impact on fisheries.

Sea level rise
Sea-level rises combined with storm surges could pose a serious threat to people and assets in the Netherlands and South-Eastern parts of the UK. Sea levels could rise as much as 80 cm by the end of the century. Longer term, 4° C (7° F) would result in a much higher rise in sea level.

Extreme temperature
Increase of temperatures from 6 to 10°C worldwide for the hottest days.

Permafrost
Disappearance of near-surface permafrost from Northern Siberia and reduction of permafrost in Canada and Alaska.

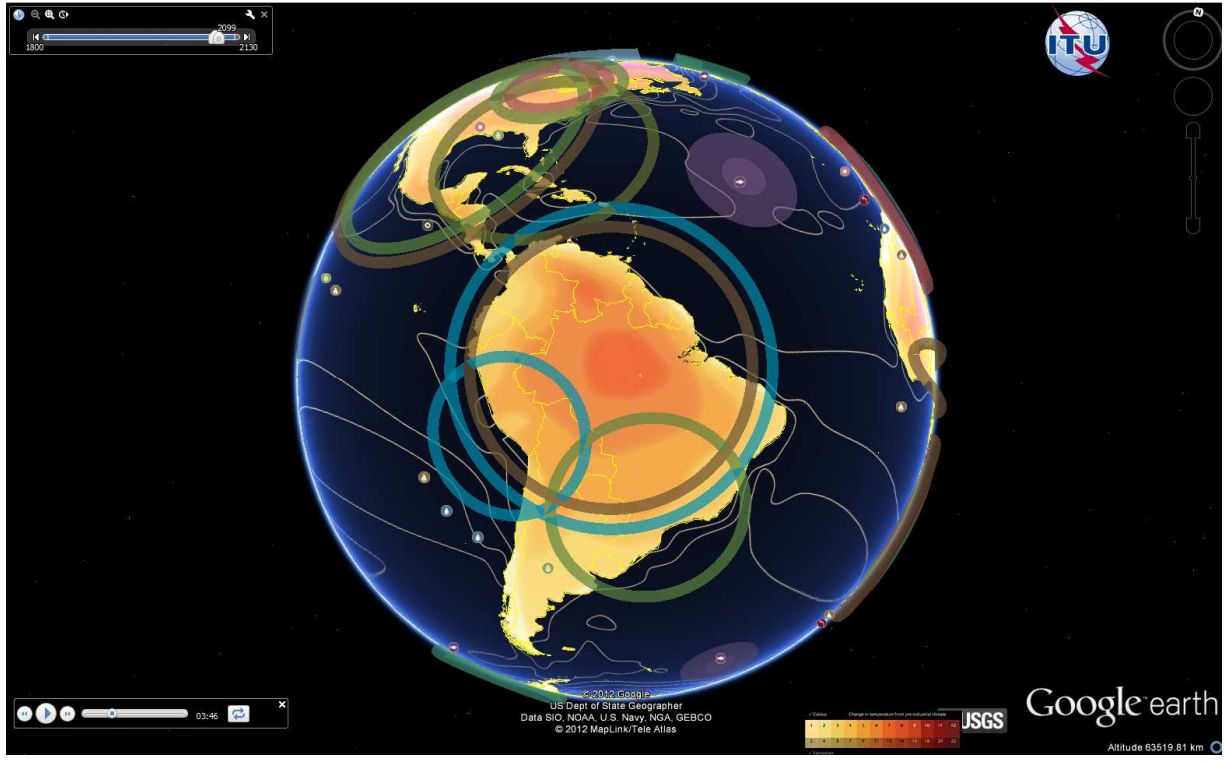
Forest fire
High forest-fire danger projected to affect every populated continent.

Drought
1 in 10-year drought events today occur twice as frequently across southern Africa, South-East Asia and the Amazon basin.

Water Availability
Disappearance of glaciers, water resources affected by up to 70% reduction in run-off.

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JSGS
Google earth
Altitude 63620.01 km





Making a difference with



Technology



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Google earth

Altitude 15692.26 km



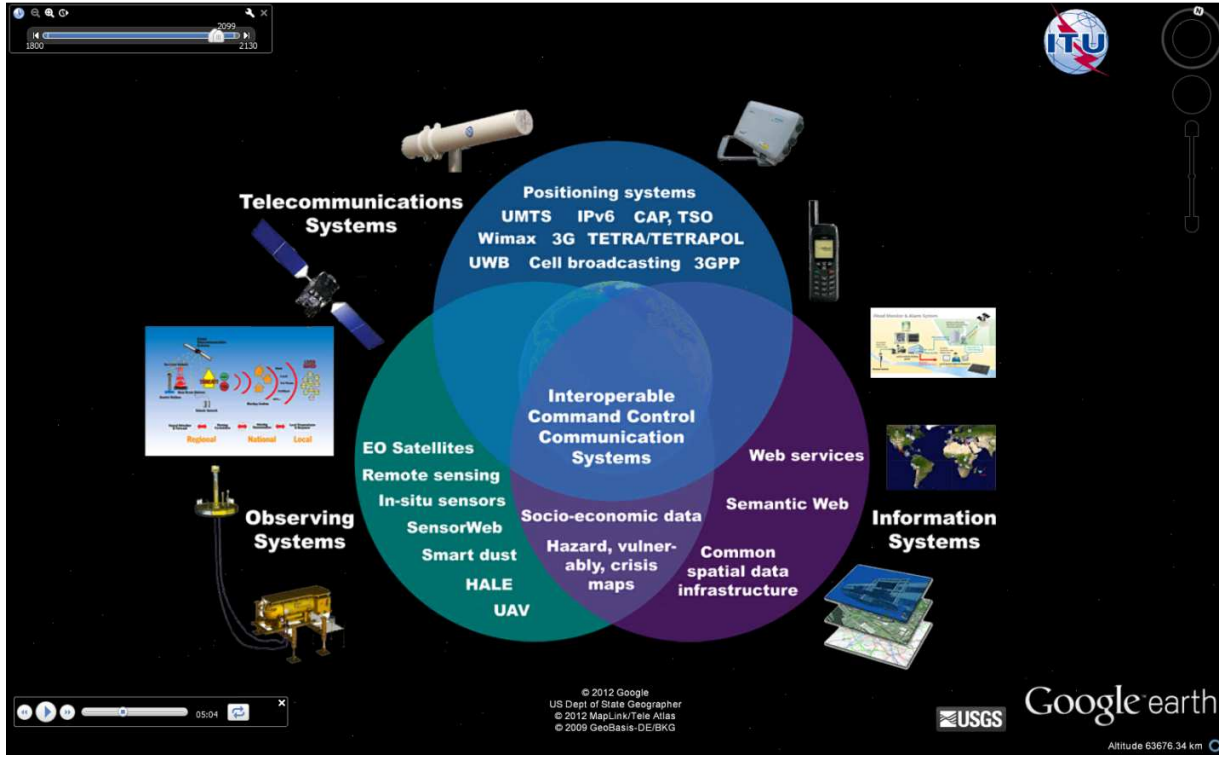
Hybrid of Technologies

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Google earth

Altitude 63617.75 km





The image is a screenshot of a Google Earth application window. The main view shows a satellite image of Earth with a purple glow around the horizon. Overlaid on this view is the text "Observing systems : Remote sensing" in red and white. The interface includes a timeline at the top left with markers for 1800, 2009, and 2130. On the right side, there are navigation controls including a compass, a search icon, and a vertical zoom slider. At the bottom left, there is a playback control bar with a play button and a timestamp of 04:08. The bottom center contains copyright information: "Data SIO, NOAA, U.S. Navy, NGA, GEBCO © 2011 Cnes/Spot Image Image © 2011 DigitalGlobe Image IBCAO". The bottom right corner features the USGS and Google Earth logos, along with a network status indicator that reads "Unidentified network No network access".

Observing systems : Remote sensing

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Image IBCAO

USGS Google earth
Unidentified network
Eye No network access



2092
1800 2130



Japan: Earthquake TSunami

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USGS Google earth

5°20'59.12" S 10°20'08.62" E elev -1514 m Eye alt 61556.03 km

1800 2009 2130





Information systems: Geographic Information Systems



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

Image IBCAO



Unidentified network
Eye No network access

04:51

2009
1800 2130

ITU

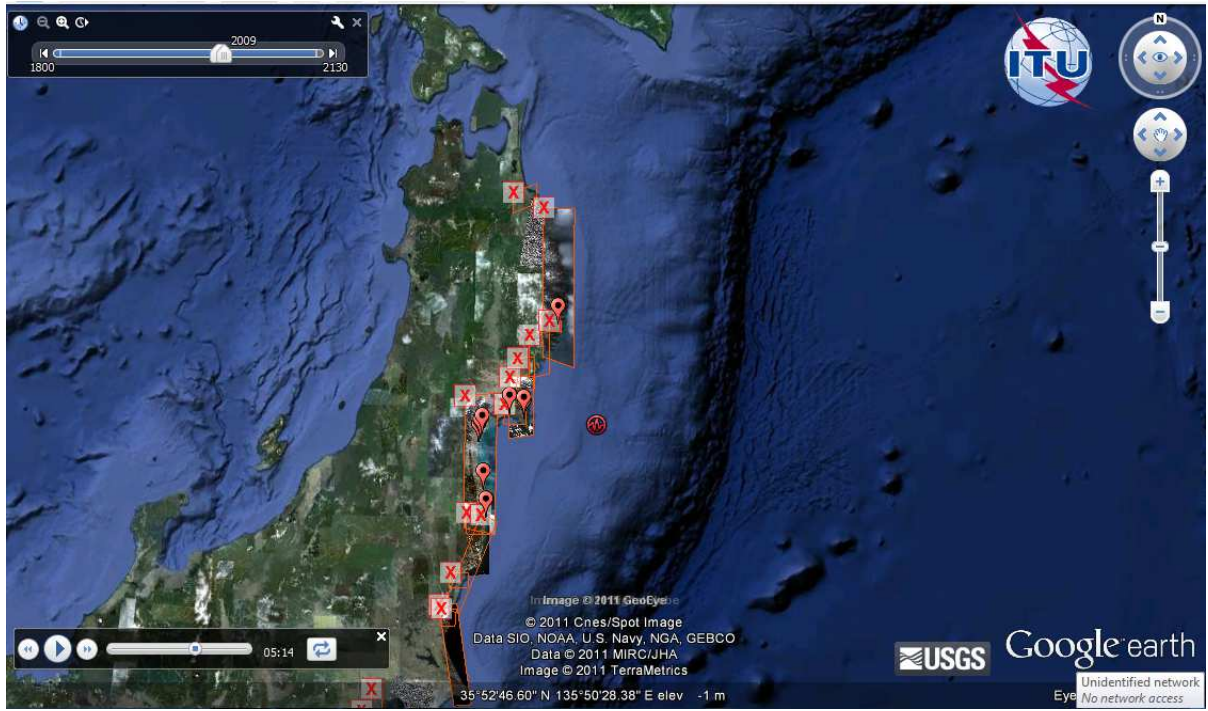
Data SIO, NOAA, U.S. Navy, NGA, GEBCO

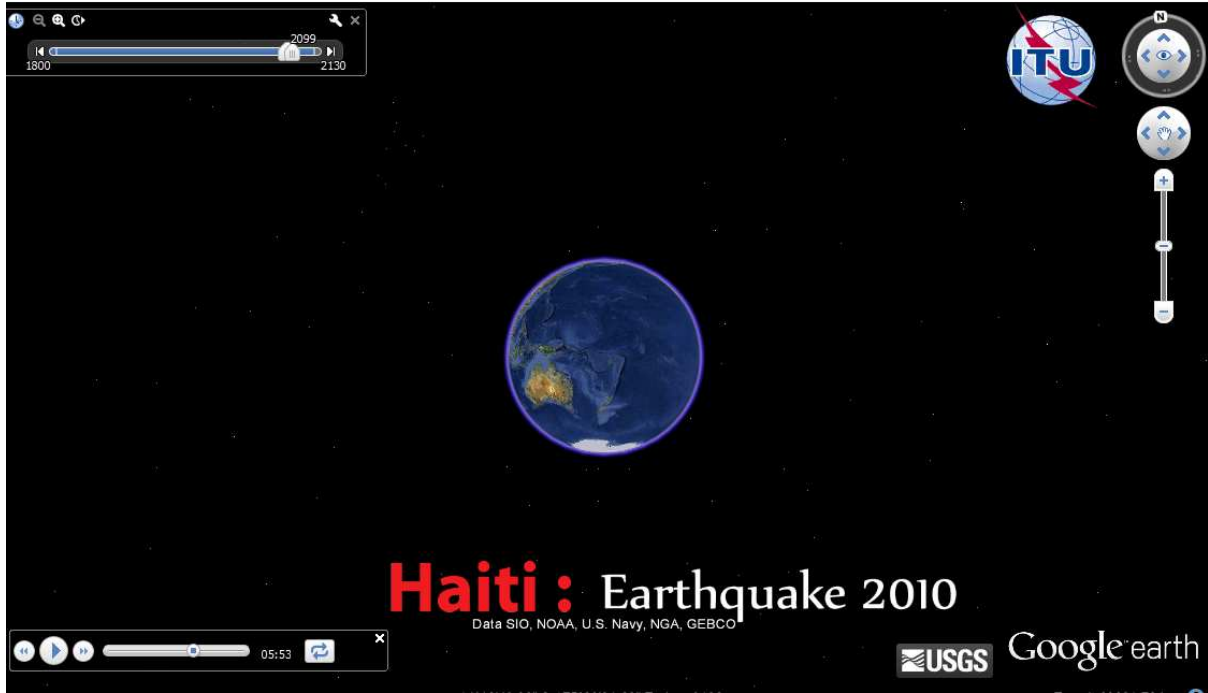
USGS Google earth

Eye Unidentified network
No network access

Image IBCAO

04:57



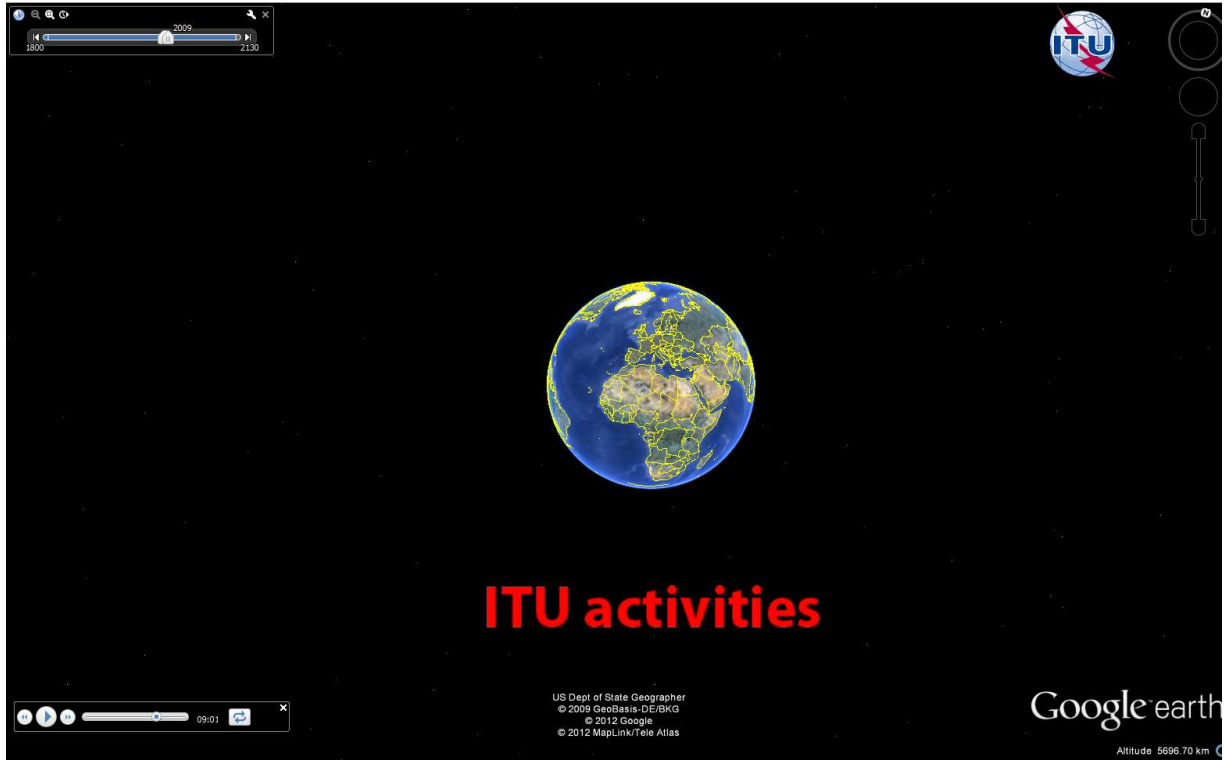












ITU activities

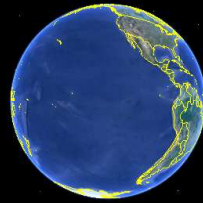
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Google earth

Altitude 5696.70 km



ITU activities



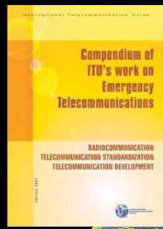
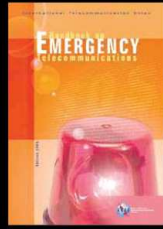
Preparedness



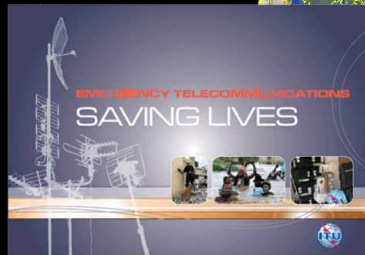
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Data SIO, NOAA, U.S. Navy, NGA, GEBCO
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10°27'42.83"S 119°20'36.50"O elev. -3853 m

Google earth

Altitude 63611.89 km



Training/ Workshops on policy, laws, regulations, and technology



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Google earth

12°33'59.02" N 98°38'33.73" E elev -643 m

Eye alt 63522.42 km



ITU activities



Early Warning



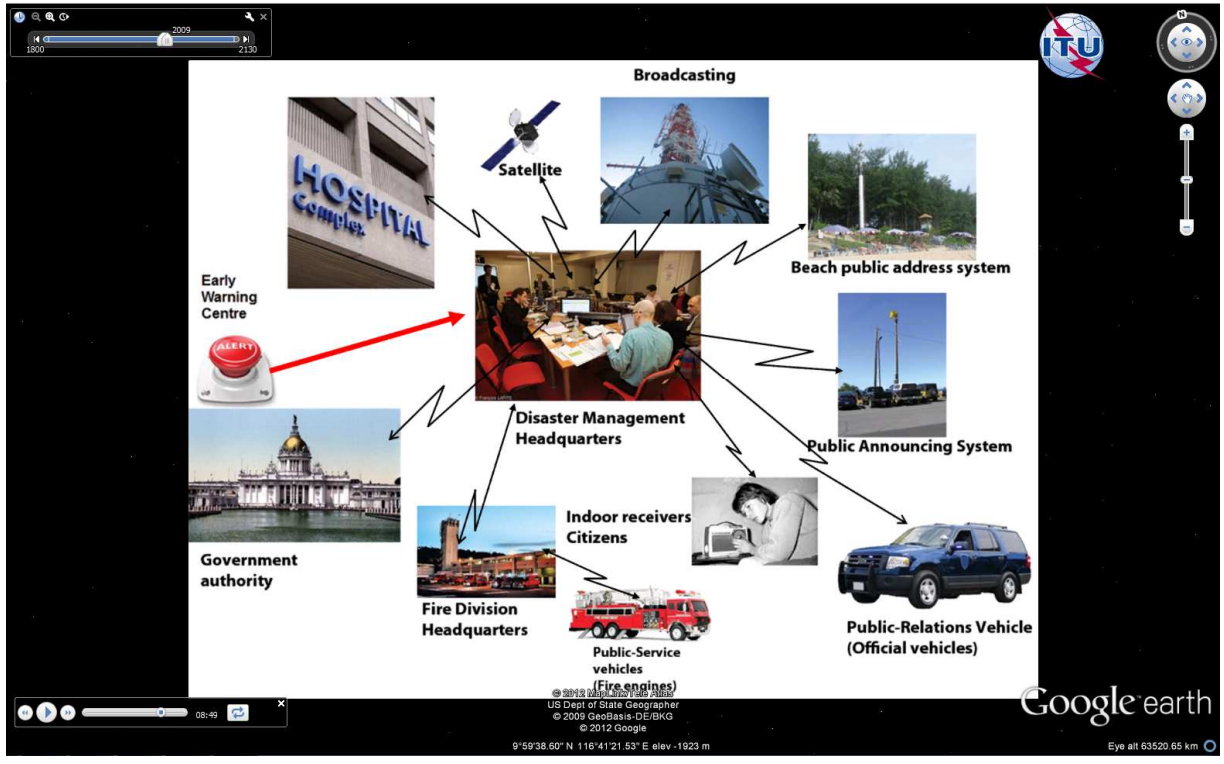
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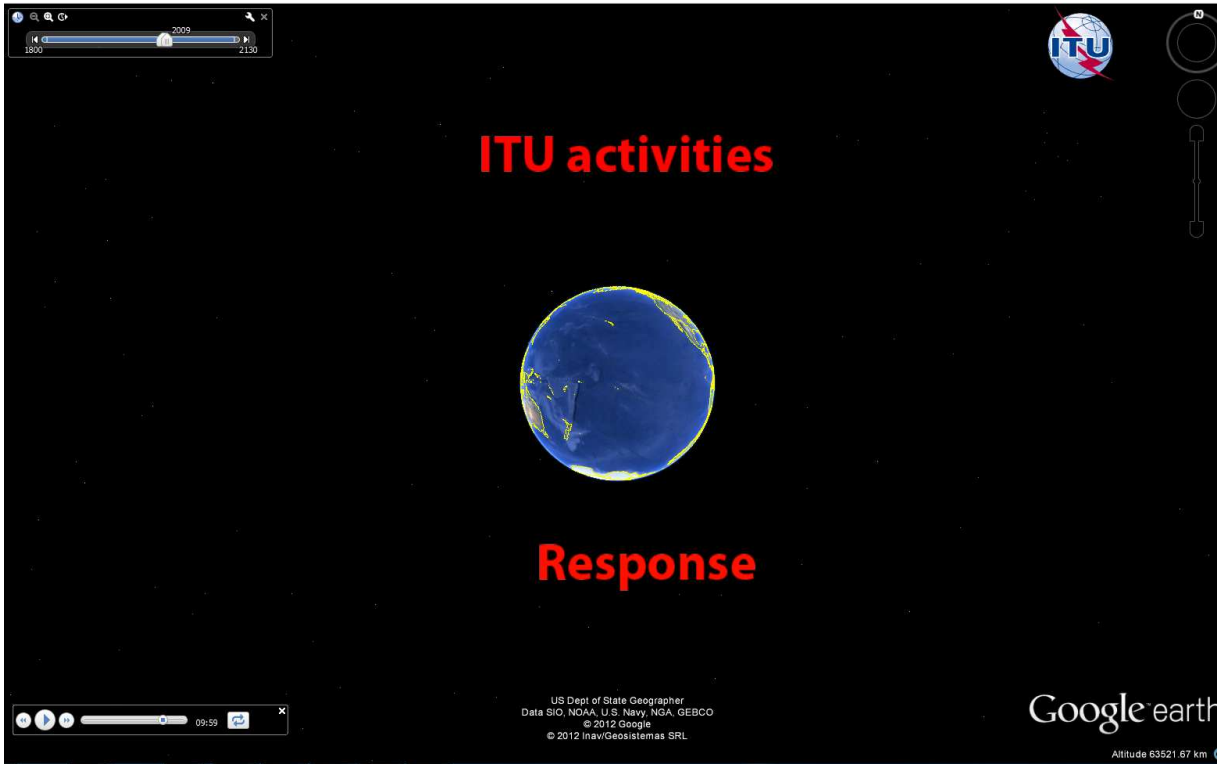
Google earth

Altitude 63617.24 km











- Deploying of telecommunication resources
- E-Applications : Telemedecine



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Google earth

2°48'13.97" N 149°58'03.78" E elev -4199 m

Eye alt 63525.95 km



ITU activities



Recovery



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Google earth

Altitude 63621.72 km



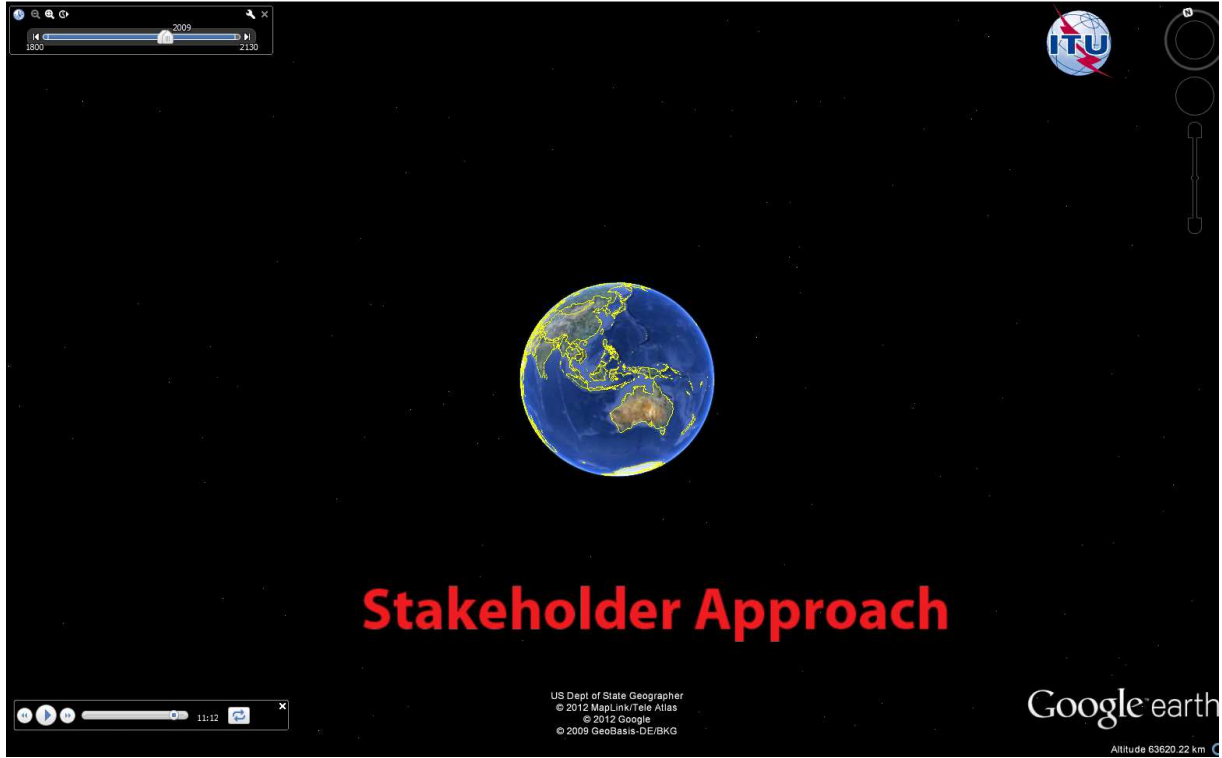
Rehabilitation of telecommunication networks

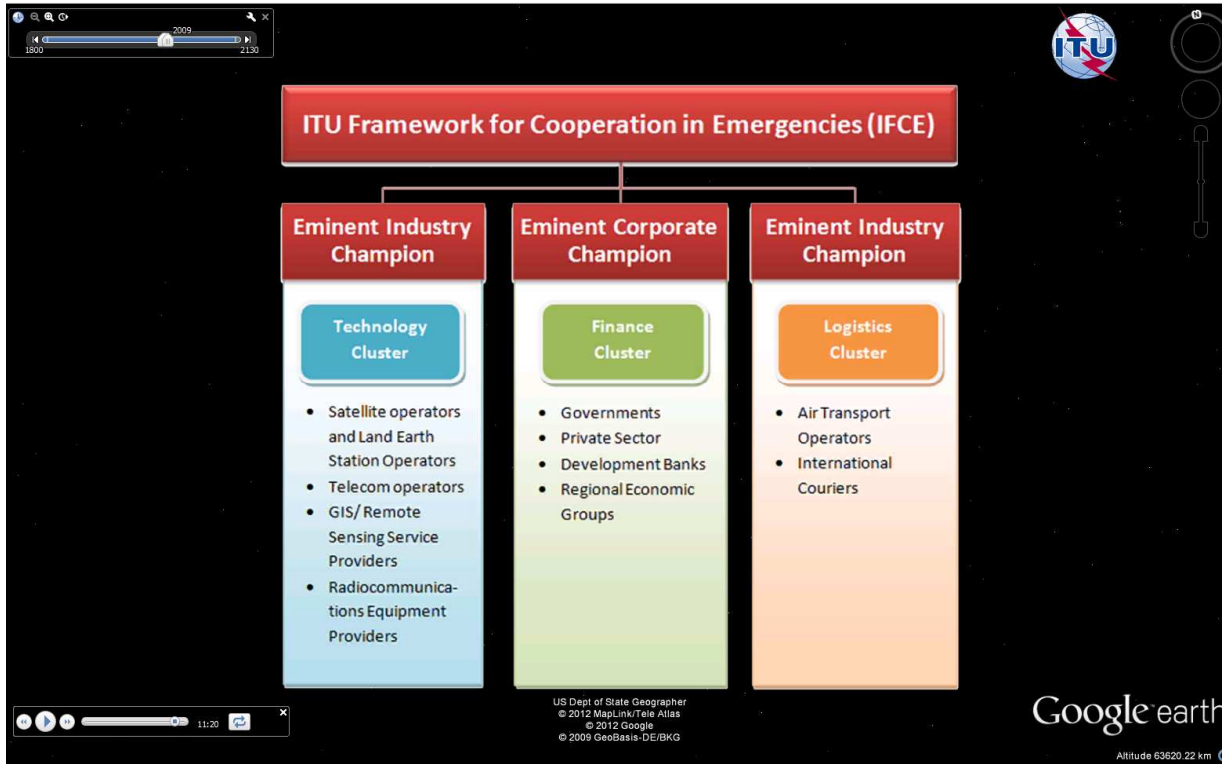


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Google earth

Altitude 63621.72 km





2009
1800 2130

Power of partnerships

ITU

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07:50

blue.itu.ch
Internet access
Unidentified network



