



Radiocommunications and climate change

Geneva,
16 May 2012

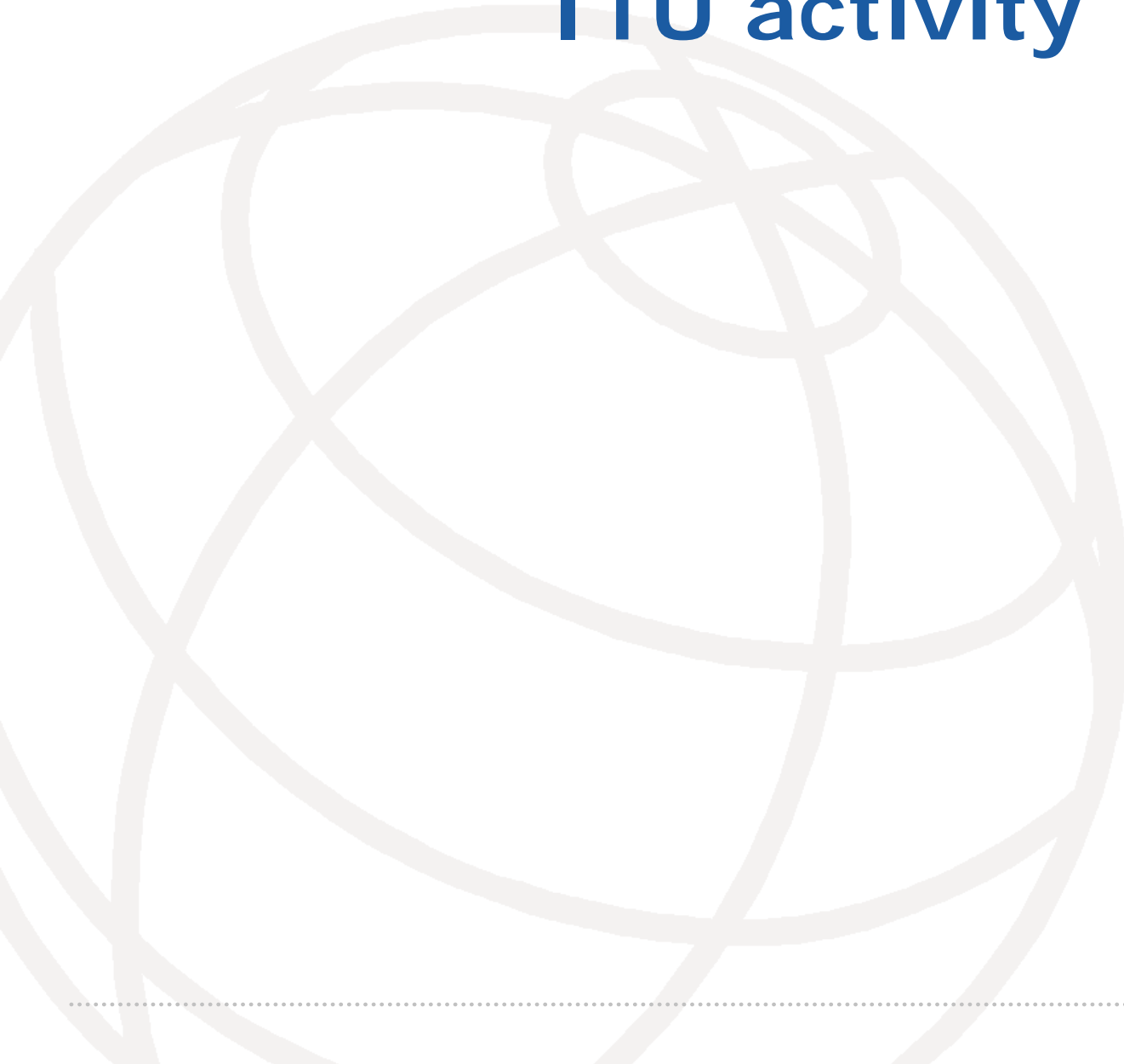
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..... Committed to Connecting the World



ITU activity



ITU-R activity



Establish and update international regulations governing use of the spectrum, through world and regional radiocommunication conferences adopting international treaties



Apply the international regulations governing use of the spectrum – Purpose: To ensure the most efficient use of the orbit/spectrum resource for operation of radiocommunication services free from harmful interference



Produce global standards, Recommendations, reports and handbooks for wireless radiocommunication systems and applications



Inform and assist administrations on radiocommunication matters: organization of and participation in information and capacity-building seminars, participation in colloquiums and workshops



World Radio Conference -12

- lightning detection systems;
- spectrum allocation for meteorological satellite systems and for Earth exploration satellite service;
- spectrum allocation for oceanographic radars;
- new provisions in the RR urging Members State :
 - to recognize the importance of Earth observation
 - promote the introduction of new applications to address issues such as emerging technologies, climate change, disaster management and other socio-economic matters

World Radio Conference -15

- Active sensing –resolution of 50 cm- additional 600 MHz spectrum





Economic aspects of Earth observation

- Earth observation satellite-based application worldwide- 6.7 billion US \$ in 2008
- Meteosat Third Generation in Europe- about 2.8 billion Euros
- 90's: an efficient warning system could have decreased the economic impact of natural disasters by 240 billions US \$
- economic benefits to US agriculture (by altering planting decisions)- US \$ 265-300 million/year
- savings in the electricity and natural gas in US 512 million US \$ in 2015 and 2.56 billion US \$ 2015-27



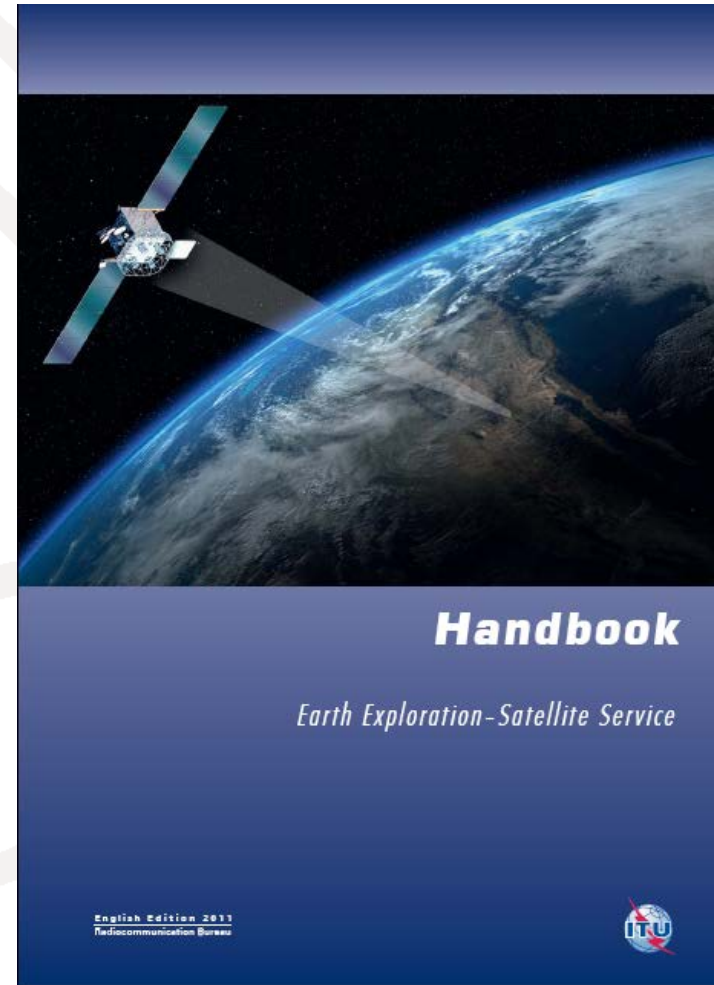
Application aspects of Earth observation

- fundamental data to our understanding of the planet and the effects of climate change
- guidelines on the provision of satellite-provided remote sensing data for the purpose of studying climate change
- summary of status of major climate variables and forcing factors
- Disaster Management Database

<https://www.sfcgonline.org/Remote%20Sensing/default.aspx>

Technical aspects of Earth observation

- development of EESS systems. Basic definitions, technical principles and applications
- to assist States in spectrum planning, engineering and deployment aspects





Conclusions

- **ITU** is committed to working with other organizations in combating climate change
- Earth observations are totally relying on **radio-frequencies** to be harmonised and protected
- Earth observation value can not be measured **in only financial terms**, as it prevents large losses of lives or promotes sustainable development