LIFE – Center for Climate, Energy & Society

Franz Prettenthaler, Director JR-LIFE

Climate change – From science to policy to application, 14.09.2016
LIFE – Center for Climate, Energy & Society

- Scientific research with a clear societal mission
  - Increase resilience vis-à-vis weather and climate risks
  - Facilitate transition towards a low carbon society

- We use satellite data for
  - Climate impact research (vulnerability assessment)
  - Designing adaptation options
  - Informing the mitigation battle
Spain

France

CC Impact assessment: Uniform building value data base

Source: COPERNICUS EMS (SPOT 5, SPOT 6)
Temporal normalization matters

![Graph showing temporal normalization over time.](image-url)
Start taking vulnerability serious

City of Graz, in mio. €, by 100m x 100m raster cells
CC Impact assessment: Uniform building value data base

Source: Pretthenthaler et al NHaz 2016
Results of neglecting socio-economics

- Normalized damage based risk modelling is under-developed in Europe
- Global vs regional scale based modeling
- Damage and exposure data make the difference
Adaptation: MODIS-Landsat: Albedo Data Vienna
Projekt KELVIN

Reduktion städtischer Wärmeinseln durch Verbesserung der Abstrahleigenschaften von Gebäuden und Quartieren

Quelle: NÖM

JOANNEUM RESEARCH
DI Dr. Hannes Schwaiger, DI Heinz Gallaun, Neil Bird, MSc

ZAMG - Zentralanstalt für Meteorologie und Geodynamik
DI Dr. Maja Zuvela-Aloise

Mitigation battle: Detecting deforestation

Projected hotspots of deforestation in the Amazon. Source: AMAZALERT Progress Report, January 2015
Thank you for your attention